This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

RBR
680.5
Sne

SAG C. RBR

Francis Pierrepont Barnard,

M.A.Oxon., F.S.A., F.R.Hist.S., F.S.A.Scot.

Current Money, intended for the use of
Travellers, &c., 2 vols in one, *with plates*,
8vo, *calf gilt*, 9s (E 102) 1766

F. P. Barnard
30. 9. 1915.

2 vols. in one

A
VIEW
OF THE
COINS
At this Time current throughout
EUROPE;

EXHIBITING

The Figures of near 300 on 25 *Copper Plates*, together with their *Value*, and in what Metal they are ſtruck, as *Copper*, *Billon*, *Silver* or *Gold*, diſtinguiſhing the real Coins from the *Money of Accompts*; Alſo the different Values of the ſame Denominations under the ſeveral Appellations of *Bank*, *Change*, *Imperial*, *Permiſſion* and *Current* Money.

INTENDED

For the Uſe of Travellers, and all thoſe who have any Correſpondence with foreign Countries.

By THOMAS SNELLING.

LONDON:

Printed for T. SNELLING, next the *Horn Tavern*, in *Fleet-Street*.
MDCCLXVI.

Who buys and ſells all Sorts of Coins and Medals.

ASHMOLEAN MUSEUM OXFORD
NOV. - 1931

P R E F A C E.

AS one great uſe of the following work is to aſſiſt Gentlemen or others who go abroad, in the knowledge of the current money of thoſe places they paſs through or reſide at, we have therefore endeavoured to make it as portable as poſſible, and have given the values in the conciſeſt manner we could, and have alſo contrived it ſo, that the value of the coin and the figure of it might be ſeen on the ſame page.

The engravings are all taken from the coins themſelves, (moſtly in our own poſſeſſion) and the values are taken from the beſt and lateſt writers of the ſame countries where the coins are current.

However, it muſt be remembred, that there is no part of Europe where their money has remained ſo long fixed and unchanged in its value as in England, where the Silver has continued of the ſame value within a trifle for 200 years; but there are but few places abroad where their money has been on the ſame *Foot* now as it was 50 years ago; and it will appear in the following pages, that within about 20 years there has been almoſt 20 alterations in the value of the money in different places of Europe.

The values of the ſmall pieces are given in fractions as little intricate, and as near as poſſible to their true ones, but not ſtrictly ſuch; and for this reaſon we have made uſe of the words *nearly*, *almoſt*, *about*, *more or leſs*, or other words to the ſame purpoſe.

* * *

Great Britain.

WE have current here in pure Copper a *Fourthing* or *Farthing*, or $\frac{1}{4}$ Penny, and an *Halfpenny* (No. 1) two for a Penny.

In Silver the ſmalleſt piece in currency is that which paſſes for *Sixpence*; the next is a *Shilling* (No. 2) current for 12 Pence, an $\frac{1}{2}$ *Crown*, current for 2s 6d, and a *Crown*, paſſing for 5 Shillings. There are alſo pieces of 1 Penny, 2 Pennies, 3 Pennies, 4 Pennies or *Groats*, but not in currency; and it is but very ſeldom a Crown piece is to be ſeen.

In Gold there is a Quarter Guinea, current for 5s 3d, an $\frac{1}{2}$ Guinea for 10s 6d, and a *Guinea*, current for 21s or 1 Pound 1 Shilling Sterling.

Accompts are kept in Pounds, (imaginary) Shillings and Pence Sterling; each Pound 20 Shillings, and each Shilling 12 Pence, and ſometimes Farthings are alſo added.

France.

In Copper there is a *Liard* of 3 Deniers, or $\frac{1}{4}$ Sous (No. 1, and alſo another like No. 2) worth about $\frac{1}{2}$ a Farthing, a *Deux Liards* or $\frac{1}{2}$ Sous (No. 2) and a Sous or 4 Liards of the ſame type, worth about a Farthing and an $\frac{1}{2}$ Penny Sterling.

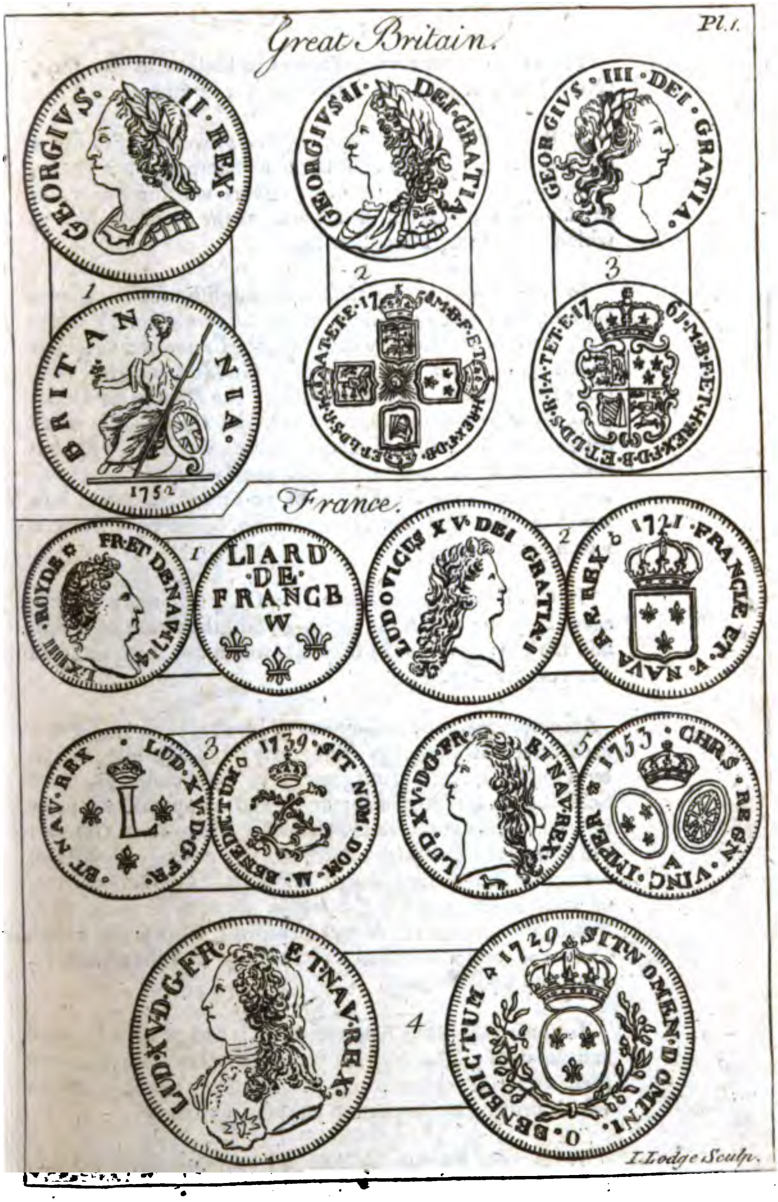
In Billon or baſe Silver there is a *Deux Sous* or 2 Sous piece (No. 3) and a ſingle Sous of the ſame ſtamp, worth a trifle more than a Penny and an $\frac{1}{2}$ Penny.

In Silver there is the *Ecu Blanc* of 6 Livres, worth about 5s 3d, the $\frac{1}{2}$ Ecu or Crown of Exchange (No. 4) worth 2s 7$\frac{1}{2}$d, the 5th part of ditto or 24 Sous piece, worth 1s 6$\frac{3}{4}$d, the 10th or 12 Sous piece, worth 6$\frac{3}{8}$d, and the 20th or 6 Sous piece, worth 3$\frac{1}{5}$d.

In Gold there are a *Louis d'or* (No. 5.) current at 24 Livres, worth about 20s 6d, but in many places paſſes for the ſame as our Guinea. There are alſo the $\frac{1}{2}$ and the double of the ſame type.

Accompts are kept in Livres, Sous and Deniers Tournois, (the firſt and laſt imaginary) each Sous 12 Deniers, and each Livre 20 Sous. The Livre is worth about 10$\frac{1}{2}$d, but frequently reckon'd near 11d, or 22 Livres to 1 £ Sterl.; but at 10$\frac{1}{2}$d there are 22$\frac{6}{7}$ to 1 £ Sterl.

N. B. Their money has been of this value ever ſince 1726, Pl. 1.


Great Britain.
GEORGIVS. II. REX.
1
BRITANNIA.
1752
GEORGIVS.II. DEI.GRATIA.
2
17 58 M.B.F.ET.H.REX.F.D.B.ET.L.D.S.R.I.A.T.ET.E.
GEORGIVS III DEI GRATIA.
3
17 61 M.B.F.ET.H.REX.F.D.B.ET.L.D.S.R.I.A.T.ET.E.
France.
LXIIII ROY DE FR ET DE NAV 1714
1
LIARD DE FRANCB W
LUDOVICUS XV DEI GRATIA
2
1721 FRANCIÆ ET NAVA R. REX
LUD.XV.D.G.FR. ET NAV.REX
3
L
1739 SIT NOM.DOM.BENEDICTUM
LUD.XV.D.G.FR. ET NAV.REX.
5
1753 CHRS REGN VINC IMPER
A
LUD.XV.D.G.FR. ET.NAV.REX.
4
1729 SIT NOMEN DOMINI BENEDICTUM
O

I. Lodge Sculp.

The only copper money current in Holland is the *Duyt*, (No. 1) or $\frac{1}{8}$ of a Stuyver, in value $\frac{1}{2}$ a farthing.

In Billon there is the *Stuyver* (No. 2) worth a Penny, a *Doubeltje* or double Stiver of the ſame ſtamp worth 2 Pence, a *Soeſthalf* or bad Shilling of 5$\frac{1}{2}$ Stivers worth 6 Pence, of the ſame ſtamp (except the arrows) as the *Schilling* (No. 3) which is worth 6$\frac{3}{5}$ Pence Sterling.

In Silver there are the *Gulden* (in Engliſh uſually called a *Guilder*, in French a *Florin*) of 20 Stivers (No. 4) worth 22d, its $\frac{1}{2}$ or 10 Stivers worth 11d, the *Croone* or 2 Guilders worth 3s 8d, and the piece of 3 Guilders worth 5s 6d, (all of the ſame type as the Guilder) the *Daalder* or Dollar (No. 5) of 30 Stivers worth 2s 9d, the *Gold Gulden* of 28 Stivers (marked 28) of ſeveral ſtamps worth 2s 7d, but thoſe with the arrows only 2s 5d, the *Lyon Dollar* at 42 Sti. worth 3s 10d, the *Rix Dollar* of 50 Stivers, more or leſs, worth 4s 7d, and the *Ducatone* (No. 6) of 63 Stivers is worth 5s 9d Sterling.

In Gold there are a *Ducat* at 5 Gl. 4 Sti. more or leſs, according to the weight worth 9s 6d, the *Ryder* of 14 Gl. and the $\frac{1}{2}$ Ryder (No. 8) of 7 Gl. worth about 25s 8d and 12s 10d Sterling.

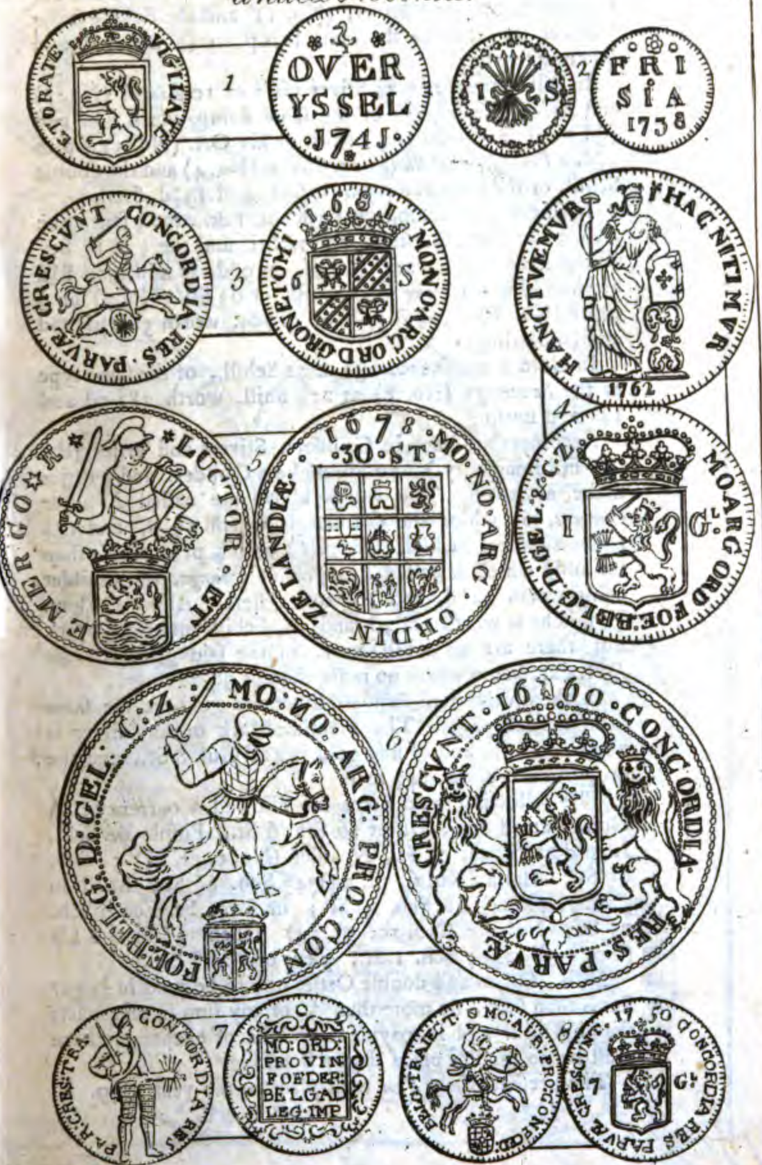
Accompts are kept in Guilders or Florins, each 20 Stivers, each Stiver 16 Pennings (imaginary). They alſo reckon by Pounds Flemiſh (imaginary) of 20 Schillings, each Schilling 12 Groots (imaginary), and computations made upon the coins at the values above are ſaid to be in *Current*; but being reckoned with a difference of 5 pr Ct, (called Agio) are denominated *Bank Money*. Thus 10$\frac{10}{11}$ Guilders current, or 10$\frac{30}{77}$ Bank, make 1 £ Sterling, as does likewiſe 36$\frac{4}{11}$ Schill. Flem. current, or 34$\frac{2}{3}$ Schill. Fl. Bank; the ~~Schill.~~ £ Flem. cur. being eſteemed 11s Sterling, and the ~~Schill.~~ Fl. bank 11s 6$\frac{2}{3}$d Sterling. £

In theſe valuations ſtandard ſilver is put at about 5s 6$\frac{1}{2}$d and ſtandard gold at 3 £ 18s pr oz, the Dutch mark of fine ſilver at 25 Gl. 15 Sti., and that of fine gold at 376 Gl., which brings the proportion to about 14$\frac{1}{2}$ to 1.

N. B. An Engliſh Shilling 11 Sti., $\frac{1}{2}$ Crown 28 Sti., a Guinea 11 Guil. 8 Sti.

United Provinces.

Pl. 2.


1
VIGILATE ET ORATE
OVER YSSEL 1741
2
1 S
FRISIA 1738
3
CONCORDIA RES PARVÆ CRESCVNT
1681
MO. NO. ARG. ORD. GRONETOMI
6 S
4
HANC TVEMVR HAC NITIMVR 1762
MO. ARG. ORD. FOE. BELG. D. GEL. & C. Z.
I GL.
5
LVCTOR ET EMERGO
1678 MO. NO. ARG. ORDIN. ZELANDIÆ
30 ST.
6
MO. NO. ARG. PRO. CON. FOE. BELG. D. GEL. C. Z.
1660 CONCORDIA RES PARVÆ CRESCVNT
7
CONCORDIA RES PARÆ CRESTRA
MO. ORD. PROVIN. FOEDER. BELG. AD LEG. IMP.
8
MO. AUR. PRO. CONFŒD. BELG. TRAIECT.
1750 CONCORDIA RES PARVÆ CRESCUNT
7 GL.

I. Lodge Sculp.

The Copper money in the Auſtrian Netherlands are an *Ortje* or *Liard*, or $\frac{1}{4}$ *Stiver*, (No. 1) and the double Ortje $\frac{1}{2}$ Stiver or $\frac{1}{2}$ Sol of the ſame ſtamp worth about $\frac{1}{4}$ and $\frac{1}{2}$ Penny Sterling.

In Billon there is a $2\frac{1}{2}$ Stiver piece or 10 *Liards* (No. 2) and the 5 Stiver piece of the ſame ſtamp worth $2\frac{3}{8}$d and $4\frac{3}{4}$d Sterl. a *Placket* or $\frac{1}{2}$ Schill. or xiv Ort. (No. 3) worth $3\frac{3}{8}$d, a *Permiſche Schilling* or 7 Stivers (No. 4) and the double Schill. of the ſame ſtamp worth $6\frac{3}{4}$d. and $13\frac{1}{2}$d. Sterl.

In Silver the Ducatone at 10 Schill. 1 Sti., the $\frac{1}{2}$ Ducatone (No. 5) at $35\frac{1}{2}$ Sti., the $\frac{1}{4}$ at $17\frac{3}{4}$ Sti. and the $\frac{1}{8}$ at $8\frac{3}{4}$ Sti. all the ſame type, worth 5s $7\frac{1}{2}$d, 2s $9\frac{3}{4}$d, 1s $4\frac{7}{8}$d, and $8\frac{1}{2}$d Sterl. Alſo a *Croone* at 9 Schill. or 63 Sti. (No. 7) an $\frac{1}{2}$ *Croon* (No. 6) at $4\frac{1}{2}$ Schill. or $31\frac{1}{2}$ St. worth 5s $0\frac{1}{4}$d and 2s $6\frac{1}{8}$d Sterling.

In Gold a *double Sovereign* at 51 Schill., of the ſame type as the *Sovereign* (No. 8) at $25\frac{1}{2}$ Shill. worth 28s 5d and 14s $2\frac{1}{2}$d ſterling.

Accompts are kept in Guilders, Stivers and ortjes (the two firſt imaginary.) 20 Sti. make a Guilder, and 4 ortjes make a Stiver. The values above are called *New* or *Current*, in which the Guilder is worth $19\frac{1}{4}$d, and $12\frac{1}{2}$ make a £ Sterl., which current is $\frac{1}{6}$ or $16\frac{2}{3}$ pr Ct worſe than the old, which is called *Permiſche* or *Change*, the Guilder being worth $22\frac{1}{2}$d, and $10\frac{2}{3}$ to a £ ſterl. Alſo a £ Flem. Permiſche is worth 11s 3d, and $35\frac{5}{9}$ Schill. make a £ Sterl. But there are 41 Schill. curr. in the ſaid £ Sterl., the £ Fl. cur. being worth no more than 9s 9d Sterling.

In theſe valuations ſtandard ſilver and gold are the ſame as in the laſt page. The Flemiſh Mark of fine ſilver is 28 Gul. 12 St. and of fine gold is 428 Gul. 8 St., and the proportion is about $14\frac{1}{2}$ to 1.

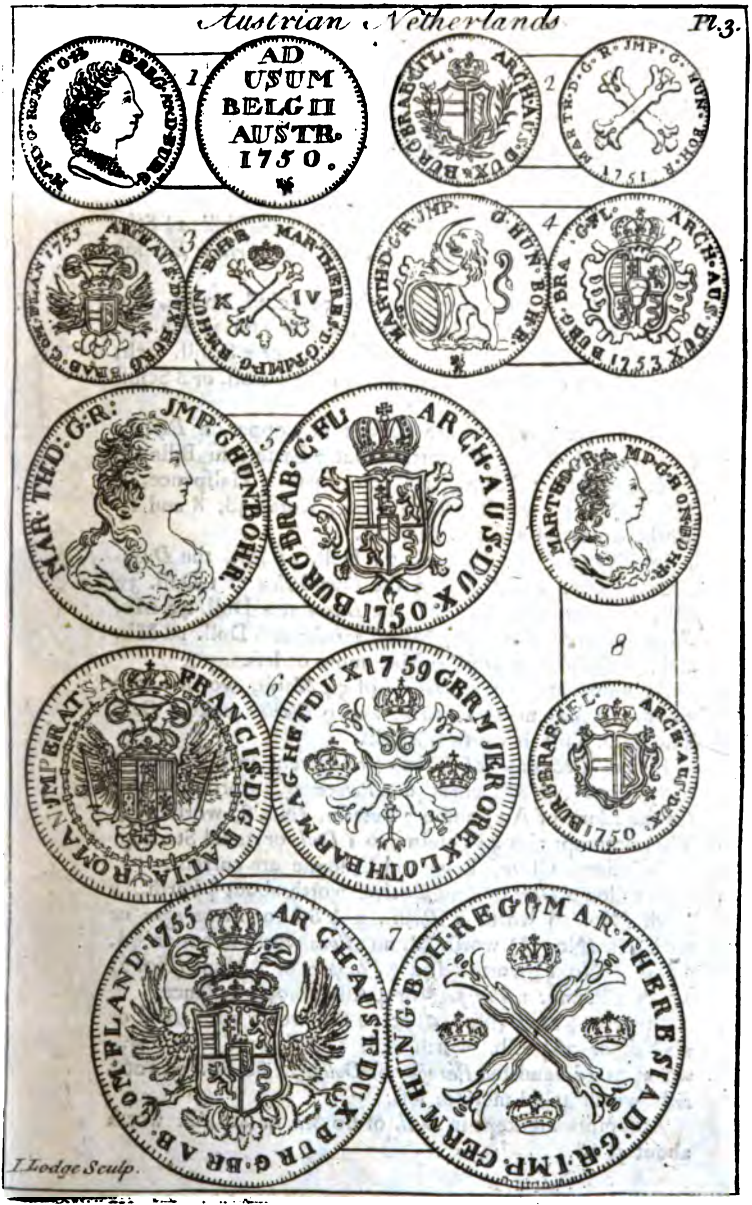
The following gold coins are allowed a currency: A Guinea at 38 Sch., Ducat 16 Sch. 6 St., Piſtole 30 Sch., Louisdor 36 Sch. $2\frac{1}{2}$ St., Noailles (No. 5, pl. 24) 54 Sch. $5\frac{1}{4}$ St., Malta (No. 6, pl. 24) 43 Sch. $4\frac{1}{4}$ St., Mirliton (No. 7, pl. 24) 28 Sch. 4 St.; in ſilver Fr. Ecu 9 Sch. $2\frac{1}{4}$ St., Navarre (No. 10, pl. 24) 7 Sch. $3\frac{1}{2}$ St. 2 L's (No. 8, pl. 24) 7 Sch. 1 St., piece of 8 at 8 Sch.

N. B. Ortjes and double Ortjes not to be paid in larger Sums than 6 St., no more than $\frac{1}{10}$ of any ſum in pieces leſs than a Schill. and in payment of bills of exchange there muſt be no ſmaller piece than a Schilling.

The preſent *Money Foot* took place in the year 1749.

as curren £ [illegible]

Austrian Netherlands


1
AD USUM BELGII AUSTR. 1750.
2
ARCHIAUS·DUX·BURG·BRAB·C·FL·
M·THER·D·G·R·IMP·G·HUN·BOH·R· 1751
3
ARCH·AUS·DUX·BURG·BRAB·C·FL·MEDIOLAN 1753
K IV
4
M·AR·TH·D·G·R·IMP·G·HUN·BOH·R·
ARCH·AUS·DUX·BURG·BRA·C·FL· 1753
5
MAR·THD·G·R·IMP·G·HUN·BOH·R·
ARCH·AUS·DUX·BURG·BRAB·C·FL· 1750
6
FRANCISCUS·D·G·RATIA·ROMAN·IMPERAT·S·A
GER·REX·LOTH·BAR·M·AG·HET·DUX· 1759
7
ARCH·AUST·DUX·BURG·BRAB·COM·FLAND· 1755
MAR·THERESIA·D·G·R·IMP·GERM·HUNG·BOH·REG
8
MAR·TH·D·G·R·IMP·G·R·HUN·BOH·R·
ARCH·AUS·DUX·BURG·BRAB·C·FL· 1750

J. Lodge Sculp.

In the Biſhoprick of Liege, at Spa, *&c.* are current.

In Copper an *Ortje* or *Liard* or $\frac{1}{4}$ Stiver worth about $\frac{1}{6}$ Penny, a double *Ortje* worth about $\frac{1}{3}$ Penny, and a *Stiver* or 4 Liards (No. 1) worth $\frac{2}{3}$ Penny.

In Billon an $\frac{1}{2}$ Shill. or 5 Stivers, and the *Shilling* or 10 Sti. (No. 2) of the ſame value as that of Brabant, or worth about $3\frac{3}{8}$d, and $6\frac{3}{4}$d Sterling, and 10 of the Liege Ortjes and Stivers are worth but 7 of Brabant.

In Silver a *Patagon* or *Dollar* is current for 8 Shill. $2\frac{1}{2}$ Sti., the *Ducatone* for 10 Shill. 5 Sti., and the *French Ecu* for 8 Shill. 15 Stiver, more or leſs.

In Gold the *Flem. Sovereign* for 50 Schill. 10 Sti., the *Guinea* and *Louisdor* for 38 Sch. and the *Piſtole* for 30 Sch.

Accompts are kept in *Florins* of 20 Sti. or 2 Schill. each, worth about $13\frac{1}{2}$d Sterl. and in *Dollars* of 80 Sti. or 8 Schil. worth about 4s 6d Sterl.

At Aix la Chapelle are current in Copper, a *Buſchen* (No. 3) or $\frac{1}{6}$ of a Mark worth about $\frac{1}{2}$ Farth., in Billon is a *Mark* worth 3 Farth., 2 *Marks* worth 3 Halfpence, 3 *Marks* (No. 4) worth $2\frac{1}{4}$d, 4 *Marks* worth 3d, 8 and 16 Marks worth 6d and 12d Sterling.

In Silver are the *Patagon* at 1 Doll. 21 Mk, the *Ducatone* at 1 Doll. 42 Mk., and the *French Ecu* at 1 Doll. 32 Mk, more or leſs. In Gold the *Duçat* at 2 Doll. 45 Mk, *Flem. Sover.* at 8 Doll. 27 Mk, *Louisdor* at 6 Doll. 18 Mk, and the *Piſtole* at 5 Doll. 9 Mk; more or leſs.

Accompts are kept in *Dollars* of 54 *Marks*, worth about 3s 6d. 6 *Mks* make 1 *Florin*, and 9 *Florins* make 1 *Doll.* The Brab. Shill. is worth 9 Marks.

In the Electorate of Triers are current in Billon an $\frac{1}{2}$ *Petermengen* (No. 8*) worth $\frac{3}{8}$d, a *Petermengen* worth 3 Farth., (as the Mark of Aix) and a 3 Peterm. (No. 8) worth $2\frac{1}{4}$d. They accompt alſo 54 Peterm. to 1 *Doll.* or 3s 6d Sterling.

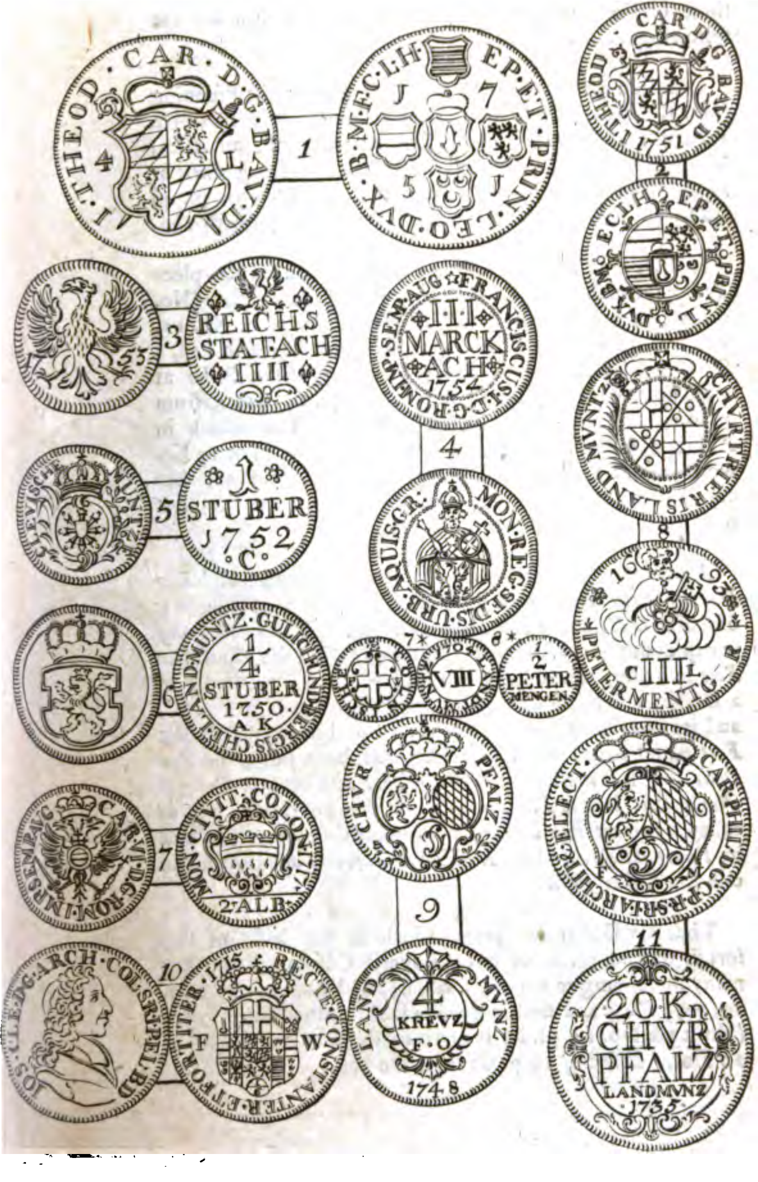
In Juliers, Cleve, Berg and Çologne are current.

In Billon a *Duyt* or $\frac{1}{8}$ of a Stiver worth about $\frac{1}{3}$ Farth., a $\frac{1}{4}$ Sti. (No. 6) worth $\frac{2}{3}$ Farth., a $\frac{1}{2}$ Sti. or *Fettmengen* or viii Hell. (No. 7*) worth $\frac{1}{3}$d, an *Albus* worth about an $\frac{1}{2}$d, a *Stuber* (No. 5) worth $\frac{2}{3}$d, a $\frac{1}{2}$ *Plappert* or 2 Albus (No. 7) worth 1 Penny, a *Plappert* or 4 Albus worth 2 Pence.

In Silver $\frac{1}{6}$ *Doll.* (No. 10) at 10 Sti. worth 7d, $\frac{1}{3}$ *Doll.* or 20 Sti. or $26\frac{2}{3}$ Alb. worth 14d, $\frac{2}{3}$ *Doll.* or Specie *Florin* worth 2s 4d, and the *Patagon* or *Dollar* at 80 Sti. or $106\frac{2}{3}$ Alb. worth 4s 6d more or leſs.

Accompts are kept in *Doll.* of 60 *Sti.* or 80 *Alb.* worth about 3s 6d.

GERMANY


CAR · D · G · BAV · D · I · THEOD ·
4 L
EP · ET · PRIN · LEO · DVX · B · M · F · C · L · H ·
J 7 5 J
1
CAR · D · G · BAV · D · I · THEOD · 1751
2
EP · ET · PRIN · L · DVX · B · M · E · C · L · H
17 53
3
REICHS STAT ACH IIII
FRANCISCUS · I · D · G · ROM · IMP · SEM · AUG
III MARCK ACH 1754
4
MON · REG · SEDIS · URB · AQUISGR ·
CHVRTRIERIS LAND MVNTZ
8
1693
PETER MENTG
c III L
R
CLEVISCHE MUNTZ
5
1 STUBER 1752 C
6
LANDMUNTZ · GULICH UND BERGIS CHE ·
1/4 STUBER 1750 · A K
7*
1704
VIII
8*
1/2 PETER MENGEN
CHUR PFALZ
9
CAR · VI · D · G · ROM · IMP · SEM · AUG
7
MON · CIVIT · COLON · 1717
2 ALB
CAR · PHIL · D · G · C · P · R · S · R · I · ARCHIT · & · ELECT ·
11
JOS · CL · E · D · G · ARCH · COL · S · R · I · P · EL · B · D
10
1715 · RECTE · CONSTANTER · ET · FORTITER ·
F W
LAND MVNZ
4 KREVZ F · O
1748
20 Kn CHVR PFALZ LANDMVNZ 1735

In the two circles of the upper and lower Rhine, and in thoſe of Franconia, Swabia, Bavaria and Auſtria are the following coins.

In Billon a *Pfenning* or $\frac{1}{4}$ Kreutzer called light Pfenning (No. 1, 11) worth near $\frac{1}{2}$ Farth., a $\frac{1}{2}$ *Kreutzer* (No. 2) worth 1 Farth., a *Kreutzer* (No. 13) worth near $\frac{1}{2}$d, an *Albus, Weiſs* or *White Pfen.* (No. 3) worth 1d, $\frac{1}{2}$ a *heavy Batz* or $2\frac{1}{2}$ Kr. worth $1\frac{1}{8}$d, a light *Batz* or 4 Kr. (No. 9, pl. 4) worth 2d, a *heavy Batz* or 5 Kr. (No. 8, pl. 4) worth $2\frac{1}{2}$d.

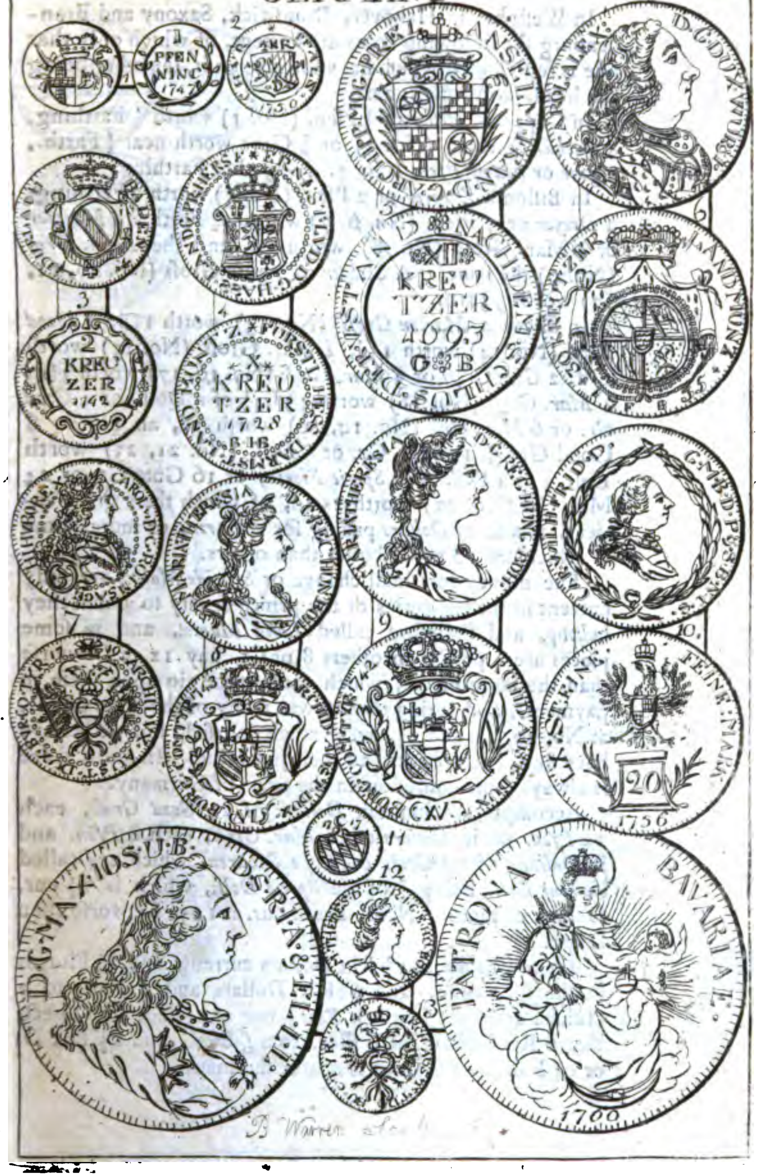
In Silver a $\frac{1}{2}$ *Kopſtuck* (No. 4) worth $4\frac{1}{2}$d, a xii Kr. piece (No. 5) worth $5\frac{1}{2}$d, a $\frac{1}{4}$ *Florin* or $\frac{1}{6}$ *Doll.* or 15 Kr. (No. 10, pl. 4) worth $6\frac{3}{4}$ or 7d, a *Kopſtuck* (No. 10 & No. 11, pl. 4) worth $9\frac{1}{4}$d, an $\frac{1}{2}$ Flo. or 30 Kr. (No. 6) worth 14d, a *Florin* or $\frac{2}{3}$ *Doll.* or 60 Kr. (No. 21, pl. 6) a *Dollar* at 2 Fl. more or leſs (No. 13 & No. 24, pl. 6) worth from 5s to 4s 6d, uſually reckoned 4s 8d. Beſides which in Auſtria and Bavaria there is a *Keyſer Groſs* (No. 7) at 13 Kr. worth about $1\frac{1}{2}$d, a double Kayſer Gr. marked vi, but cur. for 7 Kr. worth $3\frac{1}{2}$d, and another marked xv, but now paſſes for 17 Kr. worth 8d Ster.

Accompts are kept in *Florins* of 60 Kreutzer, and *Rix Dollars* of 90 Kreut. each Kr. 4 Pfen., ſo that the *Florin* is $\frac{2}{3}$ of a *Rix Doll.* and a *Rix Doll.* $1\frac{1}{2}$ *Florin.* The former was worth about 3s $1\frac{1}{4}$d, and the latter 4s 8d till the Zinniſche *Foot* in 1667, when the Florin in ſpecie, tho' marked $\frac{2}{3}$ of a Dollar, was but $\frac{4}{7}$ of that in ſpecie, therefore worth 2s 8d, and its imaginary Dollar only 4s. But ſince the Leipſick *Foot* Anno 1690, the ſpecie *Flor.* has been but $\frac{1}{2}$ the *Rix Doll,* tho' ſtill marked $\frac{2}{3}$ as the other, and the *Rix Doll.* of which this is the *Flor.*, only $\frac{3}{4}$ of that in ſpecie, and is called a *current Rix Dollar,* being worth about 3s 6d, and its *Florin* 2s 4d, and $1\frac{1}{3}$ *Rix Dollar current* or more make one *Rix Dollar ſpecie.*

The Rix Dollar in ſpecie which is the baſis of this ſort of reckoning, is of 9 to 1 mark Cologne fine; but many in the empire are of $9\frac{1}{4}$, $9\frac{1}{3}$, $9\frac{1}{2}$, $9\frac{3}{5}$ Doll., or $18\frac{1}{2}$, $18\frac{2}{3}$, 19, $19\frac{1}{5}$ *Flo.*, and the *Convention* Doll. coined ſince 1752, (No. 13 & No. 24, pl. 6) is of 10 to the ſaid fine mark, or 20 Flor., differing 10 pr Ct from the beſt.

GERMANY

pl:5


1
PFEN WING 1747
2
1750
ANSELM FRANC D G ARCHIEP MOG PR EL
5
CAROL ALEX D G DUX WURT
6
BADEN
3
ERNST LUD D G HASS LANDG PR HERSF
4
XII KREUTZER 1693 G B
NACH DEN SCHLUS DER STAND
2 KREUZER 1742
X KREUTZER 1728
FURSTL HESS DARMST LAND MUNTZ
30 KREUTZER
LAND MUNTZ
1 7 F B 3 5
CAROL D G R I HUNG BOH
7
MAR THERESIA D G RE HUNG BOH
8
MAR THERESIA D G REG HUNG BOH
9
CAR WILH FRID D G M B D P S
10
ARCHIDUX AU DUX BUR CO TYR 17
ARCHID AUST DUX BURG CONT TYR 1743
VII
ARCHID AUST DUX BURG CO TYR 1742
XVII
LX STEINE FEINE MARK
20
1756
11
12
D G MAX IOS U B D S R I A & EL L
M THERES D G R I G H B REG
ARCHID AUST DUX BURG CO TYR 1748
13
PATRONA BAVARIAE
1700
B Warren sculp

In Weſtphalia, Hanover, Brunſwick, Saxony and Brandenburg the following coins are current, of which only that ſide is repreſented which has the value on it, the other being the head, arms or cypher.

In Copper a *Heller* or ½ Pfen. (No. 1) worth ¼ Farthing, a *Bremen Swaren* (No. 2) or ⅕ Grot worth near ½ Farth., a *gute* or *heavy Pfen.* (No. 3, 4) worth ½ Farthing.

In Billon a *Zweyer* or 2 Pfen. (No. 5) worth a Farthing, a *Dreyer* or 3 Pfen. (No. 6, 7) worth 1½ Farth., a *Mattier* or ½ Mar. Groſs (No. 8) worth ½d, and the *Brem. Grot* (No. 9) the ſame. A *Sechſer* or ½ gute Groſs (No. 10, 11, 12) worth 3 Farth.

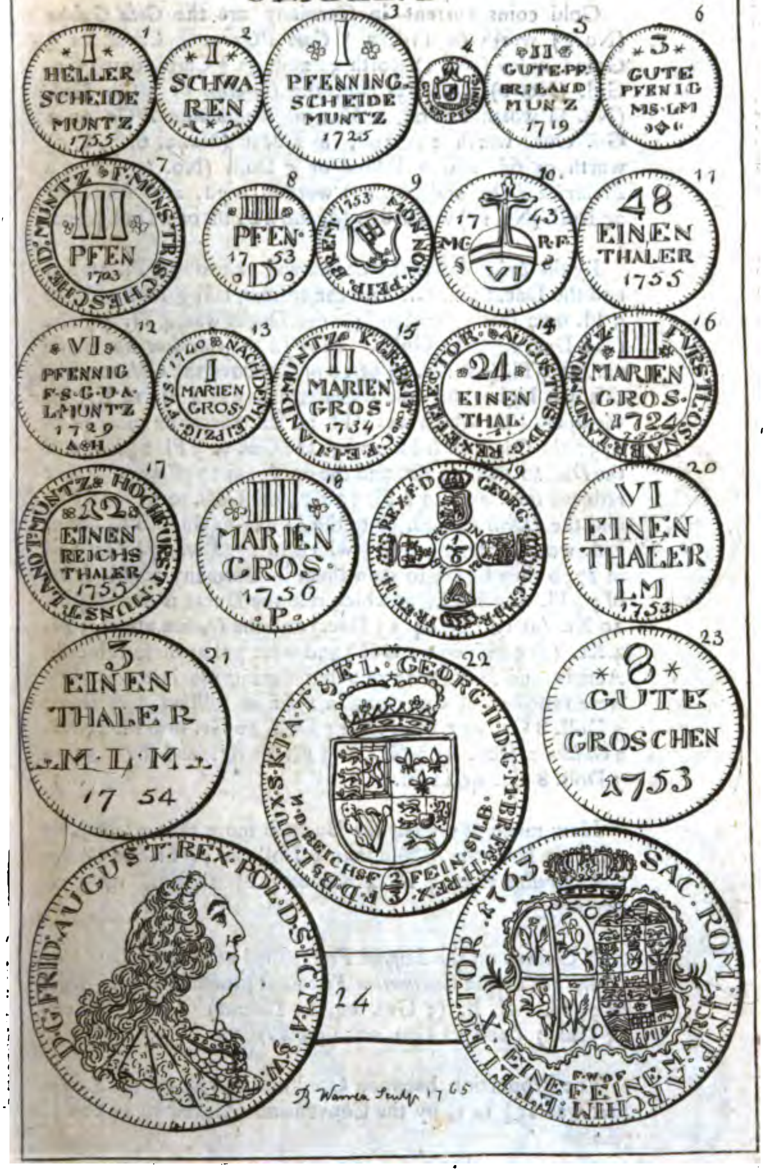
In Silver a *Marien Groſs* (No. 13) worth 1⅛d, a *Good Groſs* (No. 14) worth 1⅓d, 2 Mar. Groſs (No. 15) worth 2⅜d, 2 *Good Groſs* or 3 *Mar. Groſs* (No. 16, 17) worth 3½d, 4 *Mar. Groſs* (No. 18) worth 4¾d, ⅙ of a Doll. or 4 *Good Gr.* or 6 *Mar. Gr.* (No. 19, 20) worth 7d, an ½ *Flor.* 8 Good Groſs, 12 Mar. Gr. or ⅓ *Doll.* (No. 21, 23) worth 14d, ⅔ of a *Doll.* or a *Specie Florins* or 16 Gute Gr. or 24 Mar. Gr. (No. 22) worth 2s 4d, of which there great variety, as alſo of *Dollars* paſſing for 2 *Florins* or more, ſome of which are 10 pr Ct better than others.

The money for ſmall change or *Scheide Muntz* are only current in the territories of the prince or city to whom they belong, and therefore called *Land Muntz*, and in ſome places are 4 pr Ct, in others 8 pr Ct, nay 12 pr Ct worſe than the large pieces, which cauſes an Agio upon them in payments, and during the laſt war many of the large pieces, as No. 20, 21 and 23, were much debaſed, but we believe have ſince been reduced to their juſt value. In ſhort, there is always ſome confuſion in the coins of Germany.

Accompts are kept in *Dollars* of 24 *Good Groſs*, each 12 *Pfen.* or in *Dollars* of 36 *Mar. Groſs*, each 8 *Pfen.* and in *Dollars* of 72 *Grot*, each 72 *Swaren*, which are called *current Doll.* being ¾ of the *Specie Doll.*, which is 1⅓ cur. Dollars or more. N. B. Pruſſ. cur. is 14 pr Cr worſe than Leipz.

There was about 5⅔ Rix Dollars current, and 8½ Florins in the £ Sterling, and 6 Rix Dollars and 9 Flor. to a Guinea upon the Leipſick *Foot*; but at preſent we ſuſpect, that 6 Rix Dollars or 9 Flor. to a £ Ster., and 6⅜ Rix D. or 9½ Flor. to a Guinea is nearer the mark.

GERMANY



B. Warren Sculp 1765

Gold coins current in Germany are the *Gold Gulden* (No. 4) worth 6s 11d, a ¼ *Carl d'Or* or ¼ Carol. or ¾ Gold Gulden (No. 1) worth 5s 2¼d, an ½ Carol. or 1½ Go. Gul. (No. 2) worth 3s 5½d, the *Caroline* or 3 Go. Gul. (No. 3) worth 20s 9d, a *Max* or *Maximilian d'Or* or 2 Go. Gul. worth 13s 10d, a Ducat (No. 5, 6, 7, 8, 9) worth 9s 6d, and a Piſtole or 5 Doll. (No. 10 called a *Frederick d'Or*, and No. 12) worth 16s 7d, an ½ Piſtole or 2½ Doll. (No. 11) worth 8s 3½d, and a 2 Piſt. or x Doll. piece.

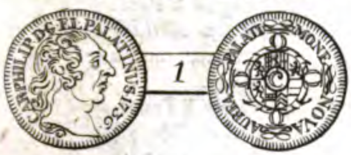
By the *Leipſick Foot* the *Gulden* was valued at 2 Fl. 56 Kr. and the Ducat at 4 Fl., but the former riſing ſoon after to 3 Fl. or 2 Doll. (ſee No. 4) the Ducat was 4 Fl. 7½ Kr. (as 8 Duc. equal 11 Gul.). In 1732 the *Caroline* was made cur. at x Fl. (ſee No. 3) or 10 pr Ct above the *Gul.* at 3 Fl., this was higher than the *Ducat* which was 4 Fl. 15 Kr. or the Span. Piſt. which was 7 Fl. 30 Kr. therefore reduced in 1737 the *Carol.* to 9 Fl. 20 Kr. the *Gul.* to 3 Fl. 6½ Kr. and the *Duc.* to 4 Fl. 10 Kr. and the next year 1738 were farther reduced the *Carol.* to 8 Fl. 50 Kr., the *Guld.* to 2 Fl. 56 Kr. and the *Ducat* to 4 Fl. or to the *Leipſick* again. The Span. Piſt. was put at 7 Fl. 6 Kr. which in 1732 was 7½ Fl., and in 1750 they began to coin them in Germany at this value of 7½ Fl. or 5 Doll., at which rate the Ducat is about 4 Fl. 10 Kr. (as 19 Piſt. eq. 33 Duc.) and the *Gulden* about 3 Fl. 4 Kr. (as 5 Piſt. eq. 12 Gul.) and were put at theſe values in Auſtria and Bavaria 1753; but during the late war they were raiſed 20 pr Ct, being in 1762 as follows. A *Ducat* 3 Doll. 8 Gr. or 5 Fl. *Piſtole* 5 Doll. 20 Gr. or 8 Fl. 25 Kr. a *Gulden* 2 Doll. 10⅔ Gr. or 3 Fl. 40 Kr. and the *Caroline* 7 Doll. 8 Gr. or 11 Fl.

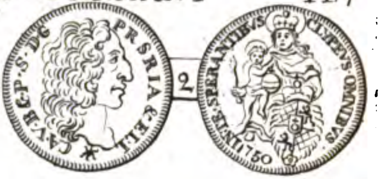
How much at preſent the Ducat is more than 2¾ Dol. or 4 Fl. 10 Kr., the Piſtole than 5 Doll. or 7½ Fl. the *Gulden* and *Caroline* than 3 Fl. 4 Kr. or 9 Fl. 12 Kr., we cannot ſay.

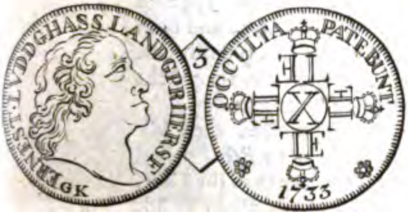
A Guinea on the *Leipſick Foot* paſſed at about 6 Doll. or 9 Fl., but on the *Convention Foot* as at preſent about 6½ Dol. or 9¾ Fl. N. B. (5 Gui. eq. 11 Ducats) (18 Gui. eq. 55 Gul.) (and 11 Gui. eq. 14 Piſt.)

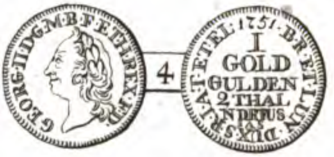
The Proportion between Gold and Silver on the *Leipz. Foot* was 15⅙ to 1, by the Convention reduced to 14⅐ to 1.

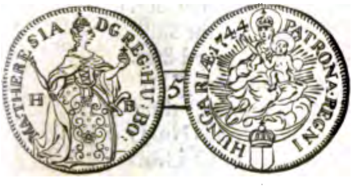
GOLD COINS OF GERMANY Pl: 7

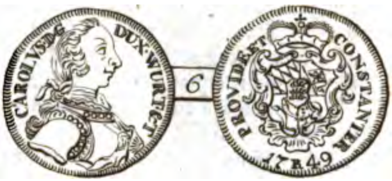


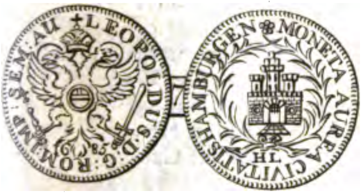

C.A.V.B.C.P.S.D.G.P.R.S.R.I.A.C.E.EL.
2
CLYPEUS OMNIBUS IN TE SPERANTIBUS 1750

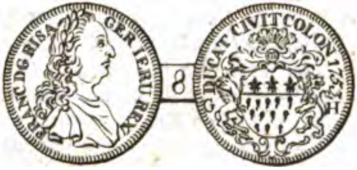


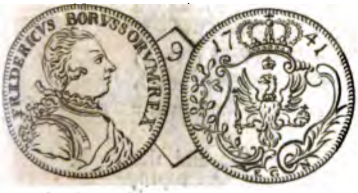

GEORG.II.D.G.M.B.F.E.T.H.REX.F.D.
4
B.R.ET.LUN.DUX.S.R.I.A.T.ET.EL.1751
I GOLD GULDEN 2 THAL

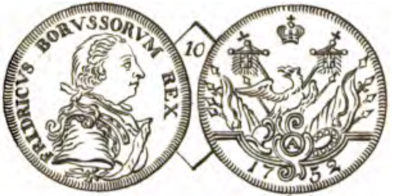


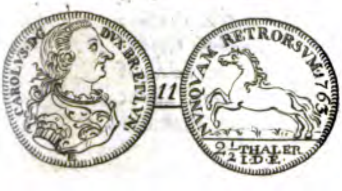


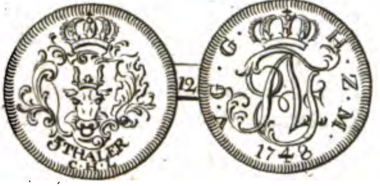

LEOPOLDUS D.G.ROM.IMP.SEM.AU.
16 85
7
MONETA AUREA CIVITATIS HAMBURGEN
HL








CAROLUS D.G. DUX BR.ET.LUN.
11
NUNQUAM RETRORSUM 1763
2 1/2 THALER I.D.E.



In Hamburgh and Lubeck are current,

In Billon a *Dreyling* of 3 Pfennings or $\frac{1}{4}$ Shill. (No. 1.) called alſo a *Witte*, worth 1 farthing, a *Sechſling* of 6 Pfen. or a *Sundtſhe Shill.* (No. 2.) worth a $\frac{1}{2}$ Penny, a *Schilling* (No. 3) worth a Penny, a 2 *Shill.* worth 2 Pence, and a 4 *Schill. Piece* (No. 4.) worth 4 Pence Sterling.

In Silver an $\frac{1}{2}$ *Mark* or 8 Schill. (No. 5.) worth 8 Pence, a *Mark* or 16 Schill. worth 16 Pence, a *double Mark* (No. 7.) worth 2s 8d. and in Lubeck they have alſo ſince 1752. a *Curr. Dollar* of 3 Marks worth near 4 Shill. Ster. and both have a *Bank* or *Rixdoll.* which paſſes for 3 Mk 9 Shill. cur.

In Gold there is a *Ducat* (No: 7. pl. 7.) curr. for 7 Mks more or leſs, and a double Ducat at 14 Mks ±.

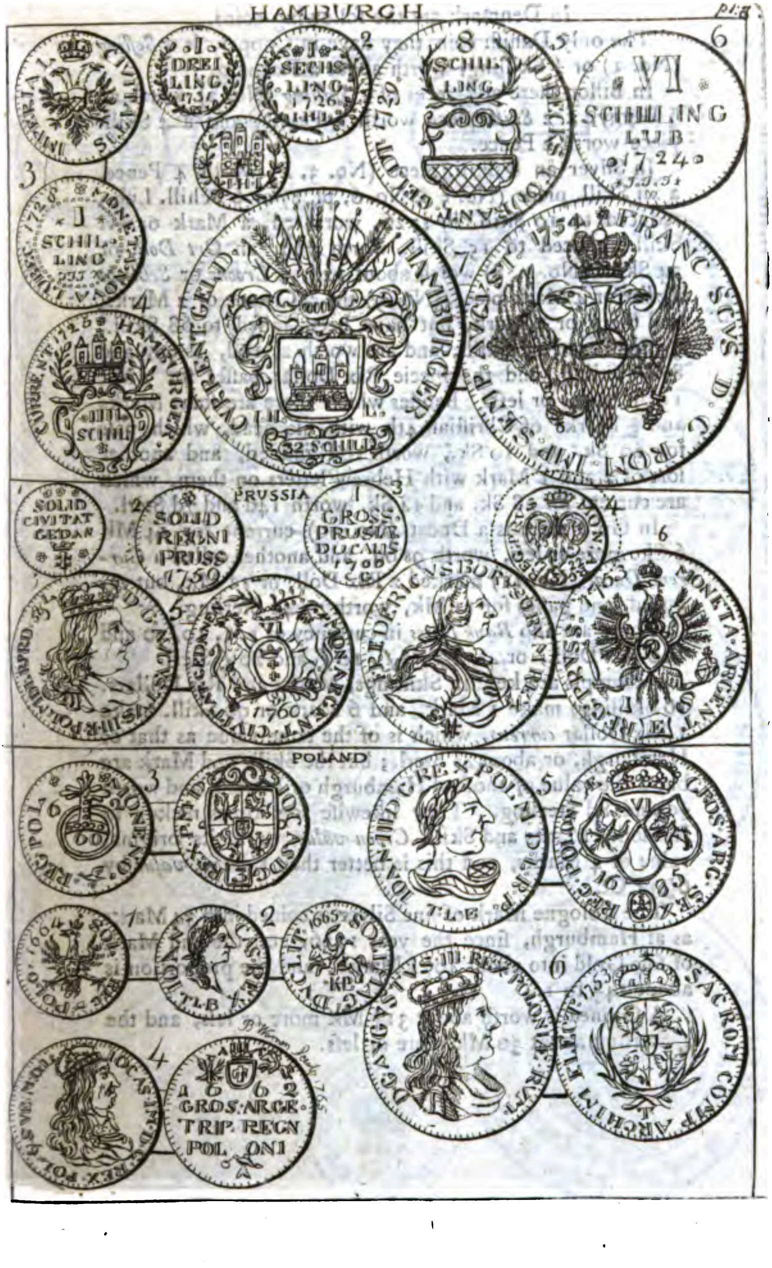
Accompts are kept in *Rix Doll.* of 3 *Mks,* each Mk 16 *Schill.* or in *Mks* of 16 *Shill.* each *Schill* 12 *Pfen.* called *Bank* Money, which is $\frac{1}{6}$ or $16\frac{2}{3}$ pr Ct better than the *Curr.* above, but is fixed at 17 pr Ct, being worth about 4s 8d, the Mk 1s $6\frac{2}{3}$ d, and the Schill. about $1\frac{1}{6}$ Pence Sterling. They reckon alſo by Pounds, Shill. and Pence *Flem.* the Shill. of which being reckoned equal 6 Shill. Bank. or 7d Ster. the Pound is equal 11s 8d Ster. and $34\frac{2}{7}$ Schill. is 1 £ St.

In Pruſſia are current in Billon a *Schill.* (No. 1, 2) three to a Groſs worth $\frac{1}{6}$ of a Penny, a *Groſs* or 3 Schill. (No. 3) worth near an $\frac{1}{2}$ Penny, a *Pultorack* or *Brommer*, or $1\frac{1}{2}$ Groſs worth 3 Farth. a *Trojack* or 3 Groſs (N. 4) worth $1\frac{1}{2}$ Pence, a *Schoſtax* (No. 5) worth about $2\frac{7}{8}$ Pence, and a *Tymſe* or *Eighteener* (No. 6) at 18 Groſs worth about $8\frac{1}{2}$ Pence Sterl.

Accompts are kept in *Rix Doll* of 3 *Guld.* or *Flor.* or 90 *Groſs*, which is of the ſame value as the curr. one of Germany of 90 Kreutzer worth about 3s 6d; alſo in *Flor.* of 30 *Groſs*, which is worth about 14d, or $\frac{1}{2}$ that of Germany; but both of them are imaginary.

In Poland are current, A *Copp. Shill.* (No. 1, 2) worth $\frac{1}{3}$ Farth. a *Groſs* worth 1 Farth., a *Pultnrack* (No. 3) worth 3 Farth. a *Trojack* (No. 4) worth $1\frac{1}{2}$d, a *Schouſtack* (No. 5) worth $2\frac{7}{8}$, and a *Tymſe* (No. 6) worth $8\frac{1}{2}$ Pence Sterl. each of which paſs for double in *Poliſh copper currency* than in the Pruſſ. billon.

Upon the coining of the copp. ſhill. in 1660, and the Tymſe in 1663 at 30 Groſs, tho' worth but 18, the Poliſh Gulden and Groſs were 70 pr Ct worſe than thoſe of Pruſſia, at which they continued ſtill about 1717, when this *Copper currency* was eſteemed Ct pr Ct worſe, or but $\frac{1}{2}$ the value of that of Pruſſia, as it is at preſent, which being about 40 Florins to the *fine Mark*, that of Poland is more than 80.


HAMBURGH
Pl. 8
1
2
3
4
5
6
7
8
IMPERIAL CIVITAS
I DREI LING 1731
I SECHS LING 1726
8 SCHIL LING 1729 LUBECKS COURANT GELDT
VI SCHILLING LUB 1724
1728 MONETA NOVA LUBEC
I SCHIL LING
1725 HAMBURGER CURRENT
IIII SCHILL
HAMBURGER CURRENTGELD
32 SCHILL
1754 FRANCISCUS D. G. ROM. IMP. S. AUGUST
PRUSSIA
SOLID CIVITAT GEDAN
SOLID REGNI PRUSS 1759
I GROSS PRUSSIAE DUCALIS 1706
1763 MONETA ARGENT REG PRUSS
FRIDERICUS BORUSSORUM REX
MONETA ARGENT CIVIT GEDANENSIS 1760
VI
POLAND
MONE NOVA REG POL
60
IOANNES CASIMIRUS D G REX
3
IOAN III D G REX POL M D L R P
T L B
GROS ARG 1685
VI
1664 SOL REG POLO
IOAN CAS REX
T L B
1665 SOLI MAG DUC LIT
D G AUGUSTUS III REX POLONIAE RUT
1753 SACR ROM IMP ARCHIM ELECT
IOAN CAS D G REX POL SUE
1662
GROS ARGE TRIP REGN POLONI
B. Warner sculp. 1765

In Denmark are the following coins.

The only Daniſh coin they have in Copper, is a *Soſling* (No. 1) or $\frac{1}{2}$ Skilling, worth about a Farthing.

In Billon there are pieces of 1 *Skilling* (No. 2) worth an $\frac{1}{2}$ Penny, a 2 *Skill.* piece worth a Penny, and a 4 Skill. piece worth 2 Pence.

In Silver an 8 Skill. piece (No. 3, 4) worth 4 Pence, a xii Skill. piece (No. 5 & No. 6, pl. 8) or 6 Schill. Lubs, reduced to 10 Skill. in 1726, worth 5d, a Mark of xvi Skill. reduced to 15 Skill. worth $7\frac{1}{2}$d, an *Ort Doll.* or 24 Skill. (No. 7, 8) worth about 12d, a *Croone* or *Schlecht Dollar* or 4 Mark piece, (No. 9) the $\frac{1}{2}$ Croone or 2 Marks, and the $\frac{1}{4}$ or 1 Mark, but have been raiſed to 68 Skill., 34 Skill. and 17 Skill., and are worth 2s 10d, 1s 5d, and $8\frac{1}{2}$d Sterling, and the ſpecie Rix Dollar paſſes for 7 Mk 15 Sk. more or leſs. Beſides which there are ſome Marks and $\frac{1}{2}$ Marks of Chriſtian 4th with his head, which paſs for 20 Sk. and 10 Sk., worth 10d and 5d, and another ſort of 2 and 1 Mark with Hebrew letters on them, which are current for 28 Sk. and 14 Sk. worth 14d and 7d Sterl.

In Gold there is a Ducat (No. 10) current for 14 Mk 6 Sk. more or leſs, worth 9s 6d, and another called a *Current Ducat* (No. 11) marked 2 Rix Doll. or 12 Mk, but reduced, and paſſes for 11 Mk, worth 7s 4d Sterling.

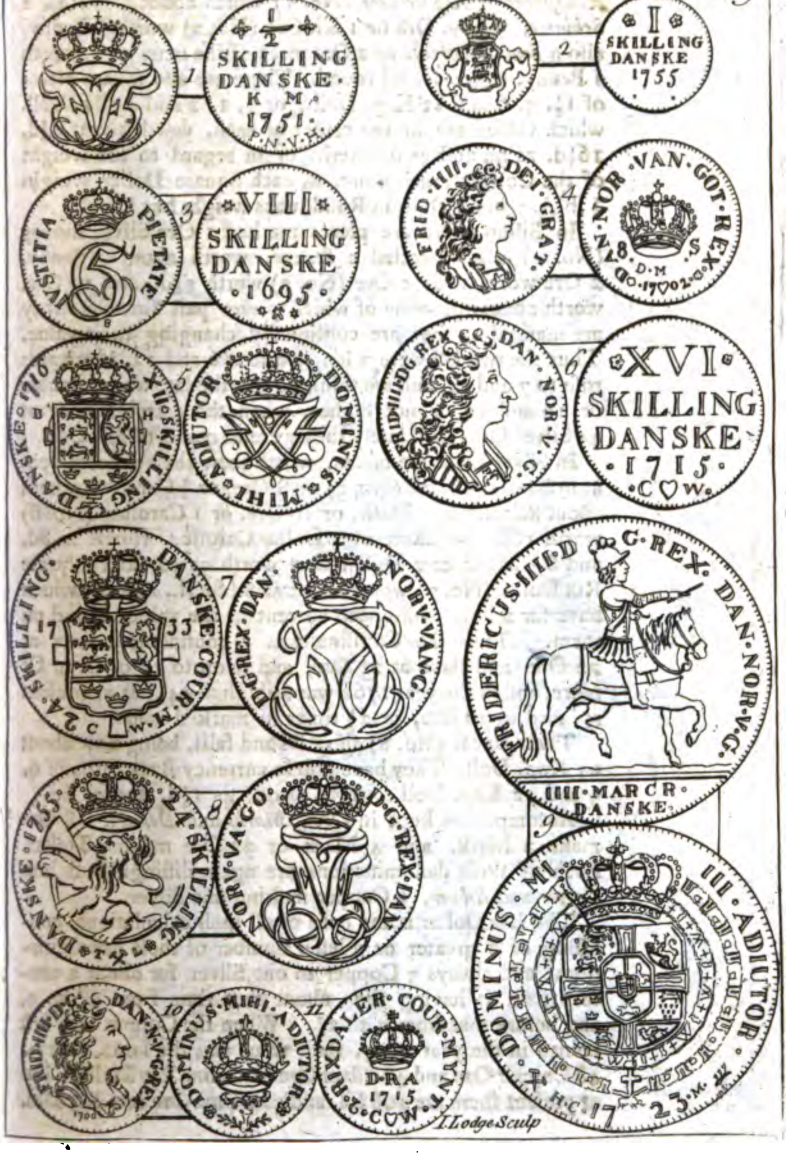
There are alſo *Bank Notes* in currency of 1, 5, 10, 50 and 100 Rix Doll., or 4s, 1 £, 2 £, 10 £ and 20 £ Sterl.

Accompts are kept in Skillings, Marks and Rix Dollars. 16 Skillings make 1 Mark, and 6 Mark or 96 Skill. make 1 Rix Dollar *current*, which is of the ſame value as that of Hamburgh, or about 4s Sterl.; but the Skill. and Mark are but $\frac{1}{2}$ the value of thoſe of Hamburgh or Lubſch, and worth $\frac{1}{2}$d and 8d Sterling. They likewiſe ſometimes reckon in Rixdoll., Marks and Skill. *Croon value*, or at its original value of 4 Marks, and this is better than *Current value* by $6\frac{1}{4}$ pr Ct.

The Cologne Mark of fine Silver is coined into 34 Marks as at Hamburgh, ſince the year 1726, and the ſaid Mark of fine Gold into about $497\frac{1}{2}$ Marks, and the proportion is about $14\frac{2}{3}$ to 1.

A Guinea is worth about $31\frac{1}{4}$ Mk more or leſs, and the £ Sterling about 30 Mk more or leſs.

Denmark Pl.9


1
½ SKILLING DANSKE K M 1751 P.N.V.H.
2
I SKILLING DANSKE 1755
3
IVSTITIA PIETATE
VIII SKILLING DANSKE 1695
4
FRID IIII DEI GRAT
D AN NOR VAN GOT REX 8 S D.M 1702
5
1716 XII SKILLING DANSKE B H
DOMINUS MIHI ADIUTOR
6
FRID IIII D G REX DAN NOR V G
XVI SKILLING DANSKE 1715 C W
7
24 SKILLING DANSKE COUR M 17 33 C W
D G REX DAN NORV VAN G
8
DANSKE 1755 24 SKILLING
D G REX DAN NORV VA GO
9
FRIDERICUS IIII D G REX DAN NOR V G
IIII MARCR DANSKE
DOMINUS MIHI ADIUTOR
H C 17 23 M
10
FRID IIII D G DAN N V G REX 1700
DOMINUS MIHI ADIUTOR
11
RIXDALER COUR MYNT 2 D RA 1715 C W
T.Lodge Sculp

The ſmalleſt pieces of Copper money in Sweden is the *Rundſtucks* or *Kopper Ore* (No. 1) worth about $\frac{2}{3}$ Farth., 1 *Scblante*, 3 Kop. Ore or 1 Sil. Ore (No. 3) worth $\frac{1}{2}$ Penny, alſo a *double Scblante* or 2 Ore piece of the ſame type, worth 1 Penny, which are all round. There are alſo ſquare pieces of 1$\frac{1}{2}$, 3, 6 and 12 Kop. Doll., or $\frac{1}{2}$, 1, 2 and 4 Silv. Doll. which values are in the center of each, worth about 8$\frac{1}{4}$d, 16$\frac{1}{2}$d, 2s 9d and 5s 6d Sterl., or in regard to the weight of the Copper much more, as each Square Dollar weighs $\frac{2}{3}$ lb A.; but a Doll. in Rundſtucks weighs but $\frac{1}{3}$ lb A.

In Billon there are pieces marked 1 Ore Silver money (No. 4) uſually called a *Stuver*, worth about $\frac{7}{8}$ Penny, 2 Ore worth 1$\frac{3}{4}$d, 5 Ore (No. 2) worth 3$\frac{1}{2}$d, and 10 Ore, worth about 7d, none of which pieces paſs for what they are marked at, but are continually changing their value. Thus the two laſt were a long while at 6 and 12, afterwards roſe to 7 and 14, and we think during the late war to double or 10 and 20, if not higher, when the Caroline was at 44 Silver Ore; and lately they were at 9 and 18 Sil. Ore.

In Silver there are pieces, which ſhew they were current at firſt for 1—Mark (No. 5) or 8 Ore, or $\frac{1}{2}$ Caroline, worth about 8d, alſo II—Mark, or 16 Ore, or 1 Caroline (No. 6) worth 16d, 4—Mark or 1 Dollar Caroline, worth 2s 8d, and 8—Mark or 2 Dollar Car. worth 5s 4d, and a ſpecie Rix Dollar (No. 7) worth about 4s 8d Sterl., none of which have for a long while been current at the values found on them. Thus the Caroline was a conſiderable time at 26 Ore, and then at 25 Ore, and ſo on to 32 or Ct pr Ct more, and in the year 1762 was as high as 44, but at preſent reduced to 36 Ore, or 2$\frac{1}{4}$ times its marked value.

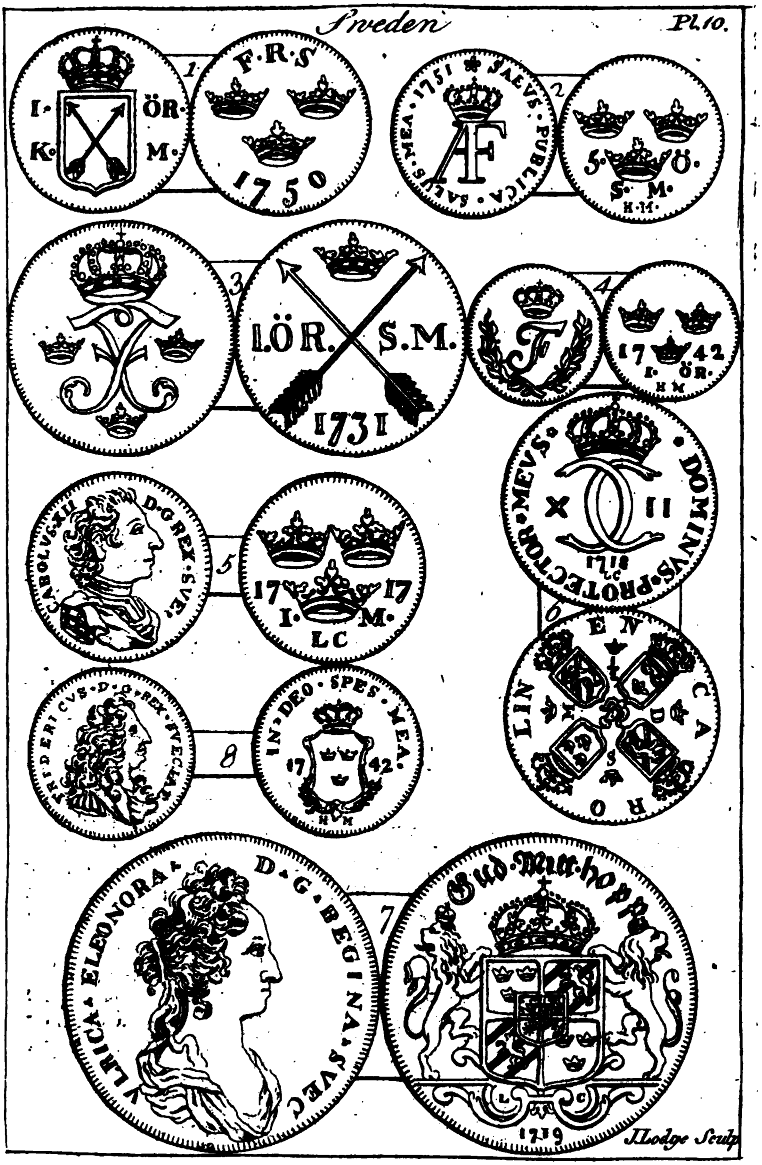
Their Ducat (No. 8) alſo riſes and falls, being now about 24 Kop. Doll. They have alſo in currency Bank Bills of 6, 9 and 12 Kop. Doll., worth 2s 9d, 4s 1$\frac{1}{2}$d, and 5s 6d.

Accompts are kept in *Ores*, *Marks* and *Dollars*. 8 Ore make a Mark, and 4 Mark or 32 Ore make a Dollar. Each of theſe denominations are again diſtinguiſhed into *Copper* and *Silver*, 3 Copper making one Silver.

The Rix Dollar is the baſis of all their calculations, conſiſting of a greater or a leſſer number of theſe denominations, and always 3 Copper to one Silver for about a century paſt, it having riſen about that time from 2$\frac{1}{2}$ to 3, and before that from 2 to 2$\frac{1}{2}$. When the Copper was firſt coined in the year 1625, their value was the ſame, that is, 48 Copper Ore and 48 Silver Ore made one Rix Dollar; but at preſent there are [illegible] Sil. and [illegible] Cop. Ore in a Rix Dol.

Sweden

Pl. 10.


1
I· ÖR· K· M·
F·R·S 1750
2
1751 IAEVS PUBLICA SALUS MEA AF
5· Ö· S· M· H·M·
3
I. ÖR. S.M. 1731
4
F
17 42 I· ÖR· HM
DOMINUS PROTECTOR MEUS · X II · 1718 LC
6
EN CAROLIN D S
5
CAROLUS·XII· D·G·REX·SVE·
17 17 I· M· LC
8
FRIDERICUS·D·G·REX·SVECIAE
IN·DEO·SPES·MEA· 17 42 HM
7
VLRICA·ELEONORA·D·G·REGINA·SVEC
Gud med hopp
L C 1719

J.Lodge Sculp

There are the following coins current in Ruſſia.

In Copper a *Poluſhka* or $\frac{1}{4}$ Kopeick (No. 1) worth about $\frac{1}{2}$ a Farthing; a *Denuſhka* or $\frac{1}{2}$ Kopeick worth a Farthing; a 2 *Kopeick* (No. 2) worth about a Penny. Beſides which till very lately there was a piece current for 5 Kopeicks, (No. 3) although it had no more Copper in it than 2$\frac{1}{2}$ Poluſhka, which occaſioned numbers of them to be poured in upon them from their neighbours, ſo that it was reduced to 2 Kopeicks, but was not worth even that, and at preſent we hear is out of currency.

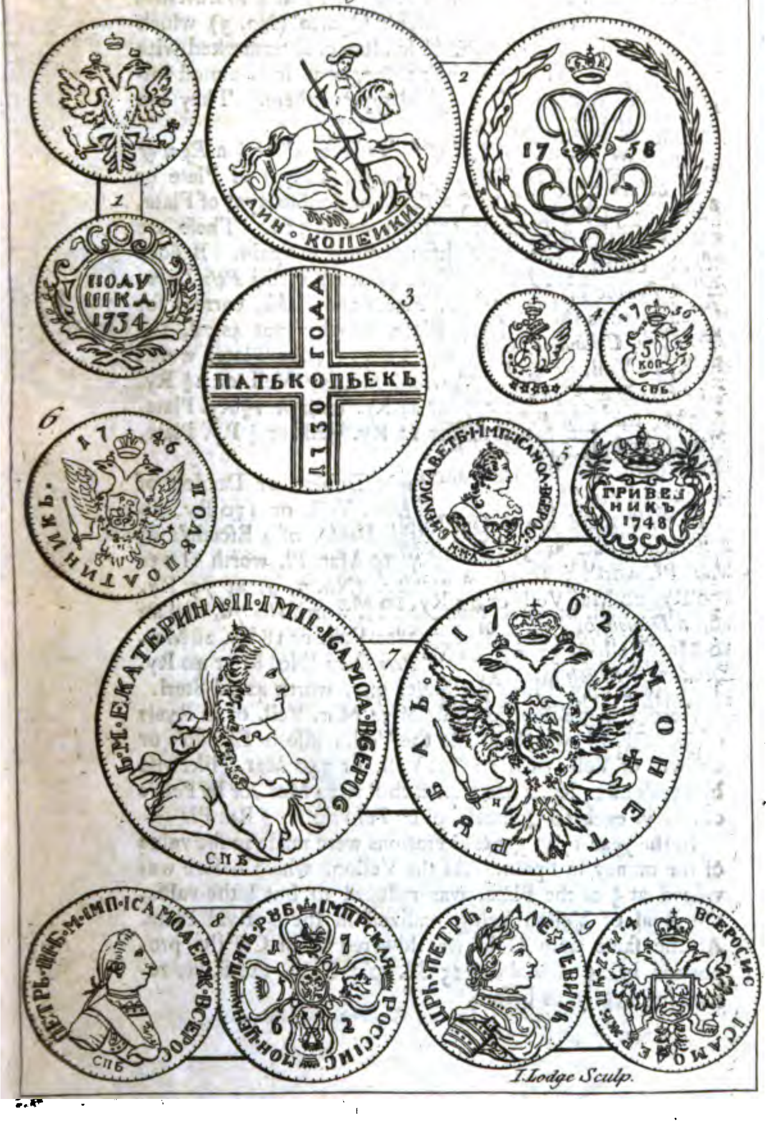
In Silver the ſmalleſt piece they have is the $\frac{1}{2}$ Griwna or 5 Kopeick piece (No. 4) worth about 2$\frac{1}{8}$d; a *Griwna* (No. 5) at 10 Kopeicks, or $\frac{1}{10}$ of a Ruble, worth 4$\frac{1}{4}$d, a *Pol Poltin* (No. 6) or $\frac{1}{4}$ Rubel, or 25 Kopeicks, worth 10$\frac{1}{2}$d, a *Poltin* or $\frac{1}{2}$ Ruble, or 50 Kopeicks, worth 21d, and a *Ruble* (No. 7) or 100 Kopeicks, worth about 3s 6d, the $\frac{1}{2}$ and $\frac{1}{4}$ are of the ſame type as the whole, but have Poltin and Polpoltin inſcribed on them, inſtead of Ruble.

In Gold there are a Ducat (No. 9) whoſe value is ſeldom the ſame long together, but riſes and falls, but generally more than 2$\frac{1}{4}$ Rubles. Alſo lately they have had a 5 Ruble piece (No. 8) which as we ſuſpect, the preſent Ruble is not worth more than 3s 6d or 3s 8d. that this piece is worth about 17s 6d or 18s 4d. There are pieces likewiſe of double this value.

Accompts are kept in Rubles, Griwna and Kopeicks. 10 Kopeicks make 1 Griwna, and 10 Griwna make 1 Ruble.

This Ruble was for a long time only imaginary, they having no other but the ſmall irregularly oval fine Silver *Denga* or $\frac{1}{2}$ Kopeicks, and their doubles or Kopeicks (which had on one ſide St. George, and Ruſs letters on the other) 35 of which were equal 1 Rix Dollar, and 2$\frac{6}{7}$ Rix Dollar in the imaginary Ruble. Afterwards 55 were required as an equivalent for the ſaid Rix Dollar, which was but 1$\frac{9}{10}$ to the Ruble, and upon the realizing the Ruble about the beginning of the preſent century, they became equal: ſince which the Ruble has been ſo much leſſened in its value by being coined both lighter and baſer, that the preſent one is not worth more than about $\frac{3}{4}$ of the old Rix Dollar. However the Ruble by which the cuſtoms are computed, is an old imaginary one of 2 Rix Dollars, 7 of which Rubles or 14 Rix Dollars muſt be ballanced againſt 1 Ruſs lb equal to 13 oz. 3 dwt. 6 gr. Troy.

Ruſsia Pl. II.



T. Lodge Sculp.

The following coins are current in Spain.

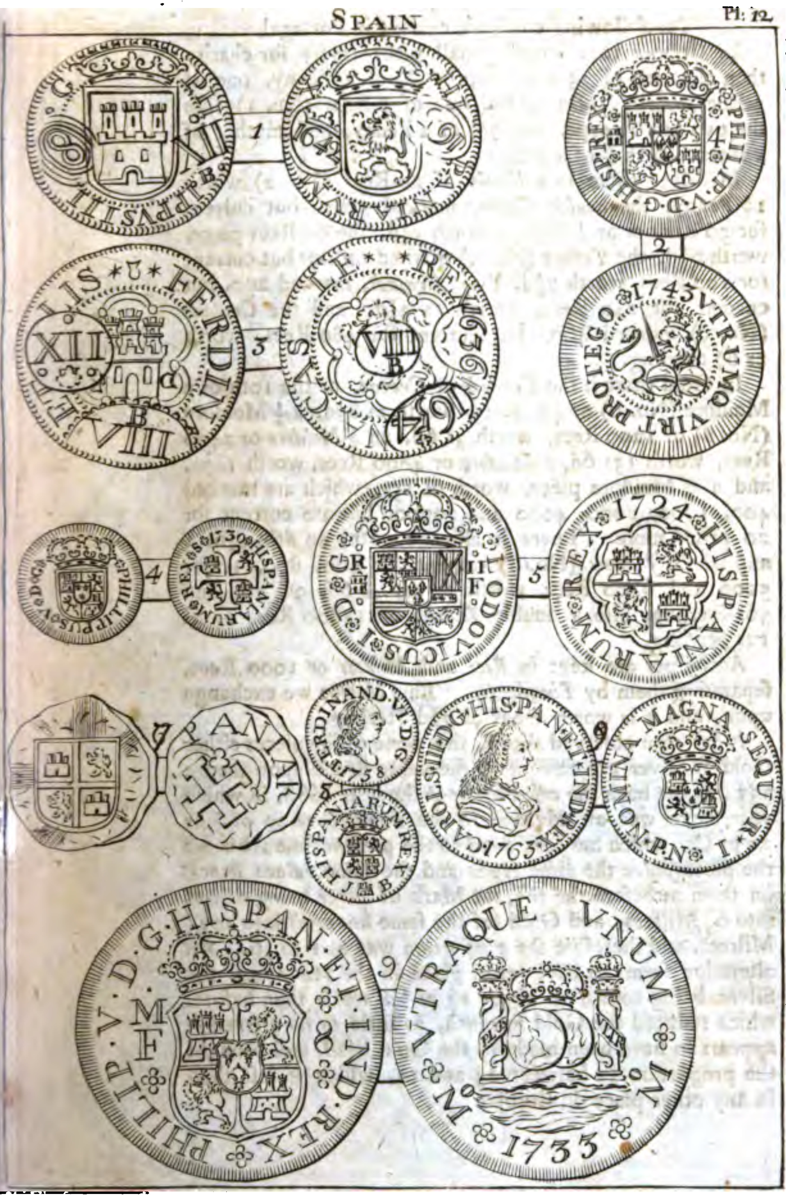
In *Copper* or *Vellon* a *Maravedie* (though few) worth about ⅓ of a Farthing, an *Ochavo* or *Chovy* at 2 Maravedies worth ⅔ of a Farth., a *Quarto* (No. 1, 2) at 4 Maravedies worth ⅓ of a Penny, and a double Quarto (No. 3) which laſt and their halves have been ſo often countermarked with the raiſing and falling of their value, that it is almoſt impoſſible to diſcover the original type of them. They are uſually called *Calderillas*.

In *Silver* there is a *Ryal of Vellon* (No. 4) or ½ a *Ryal of Plate*, or 34 Maravedies, worth 2¼d, a Ryal of Plate or 2 Ry. Vell. worth 5½d, and a *Peſeta* or double Ryal of Plate, uſually called a *Piſtarine* (No. 5) worth 11d. Theſe are called *Provincial Money*, as being coined in Spain. Beſides which there is the *Piece of Eight* (No. 6) called *Peſo Duro*, *Mexicane*, *Colunario*, *Gruſſo*, *Fuerte* and *Doble*, current for 20 Ryals Vell. or 10 Ryals Plate, worth about 4s 7d, the ½ or *Eſcudo of Vellon* at 10 Ry. Vell. or 5 Ry. Plate, worth 2s 3½d, the ¼ or *Peſeta Mexican*. at 5 Ry. Vell. or 2½ Ry. Plate, worth 1s 1¾d, the ⅛ for 2½ Ry. Vell. or 1¼ Ry. Plate, worth 6¾d, and the 16th for 1¼ Ry. Vell, or ⅝ Ry. Plate, worth 3⅜d Sterling.

In *Gold* there are a Quadruple Doblon or Doblon of 8 Eſcudo's cur. at 301 Ry. 6 Mar. Vell. or 150 Ry. 20 Mar. Pl. worth 3l 6s 4d, a *double Doblon* of 4 Eſcudo's at 150 Ry. 20 Ma. Vell. or 75 Ry. 10 Mar. Pl. worth 1l 13s 2d, a *Doblon* or *Piſtole* of 2 Eſcu. (No. 7, 9) at 75 Ry. 10 Mar. Vell. or 37 Ry. 22 Mar. Pl. worth 16s 7d, and an *Eſcudo* or ½ *Piſtole* at 37 Ry. 22 Mar. Vell. or 18 Ry. 28 Mar. Pl. worth 8s 3½d, alſo a Gold *Peſo Duro* (No. 8) at 40 Ry. Vell. or 20 Ry. Pl, as the Silver one, worth 4s 7d Sterl.

Accompts are kept in Ryals of 34 Mar. Vell. or in Ryals of 34 Mar. Pl. worth double the Vell.; alſo in Eſcudo's or Crowns of Vell. each 10 Ry. Vell. or 340 Mar., likewiſe by Peſo's of 15 Ry. 2 Ma. Vel. each Ry. 34 Mar., or by Peſo's of 16 Ry. each 16 Quarto's, or by Peſo's of 10⅝ Ry. Pl.

In the year 1737 great alterations were made in the value of the money in Spain. As the Vellon, which before was valued at ⅔ of the Plate, was reduced to but ½ the value, the Ryal of Vellon being realized in the ½ Ryal Plate. At the ſame time Gold was lowered 6½ pr Ct, the proportion being now about 15 Sil. to 1 Gold, the Silver remaining nearly as before, SPAIN


1
PHILIPVS IIII
1642
HISPANIARVM
2
PHILIP·V·D·G·HISP·REX
4
1743 VTRUMQ VIRT PROTEGO
3
FERDIN ... ELIS
XII
VIII
B
REX ... CASTELLE
VIII
1636
1654
4
PHILLIPUS V D G
1730 HISPANIARUM REX
5
LODOVICUS I D G
R
II
F
1724 HISPANIARUM REX
7
PANIAR
FERDINAND VI D G 1758
HISPANIARUM REX
8
CAROLS III D G HISPAN ET IND REX 1763
NOMINA MAGNA SEQUOR P N I
9
PHILIP·V·D·G·HISPAN·ET·IND·REX
M
F
8
VTRAQUE VNUM
M 1733 M
PLUS ULTRA

The following coins are current in Portugal.

In Copper they have a ſmall piece (more for charity than change) of $1\frac{1}{2}$ Rees, worth $\frac{1}{10}$ of a Penny, one of 3 Rees, worth $\frac{1}{5}$ of a Penny, one of 5 Rees (No. 1) like the two firſt in type, worth $\frac{1}{3}$ of a Penny, and another of x Rees, worth $\frac{2}{3}$ of a Penny.

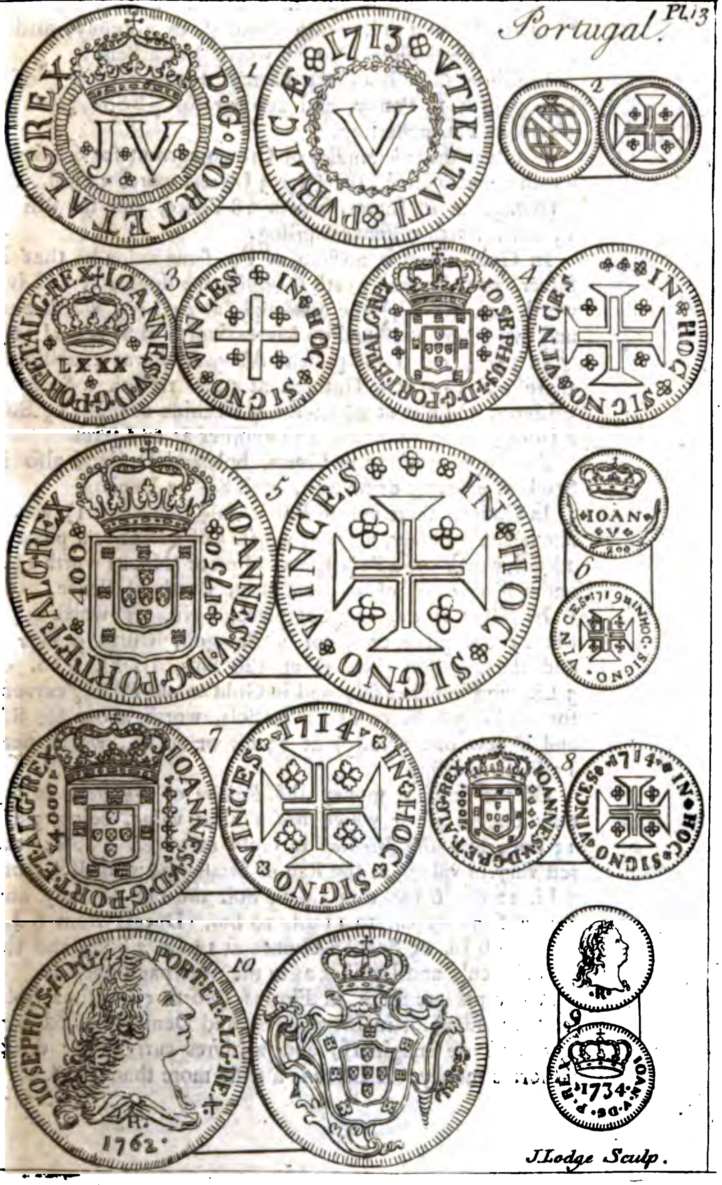
In Silver there is a *Vintin* of 20 Rees (No. 2) worth $1\frac{2}{3}$ Penny, the *double Vintin*, marked xxxx, but current for 50 Rees or an $\frac{1}{2}$ *Teſtoon*, worth $3\frac{1}{4}$d, the 60 Rees piece, worth $6\frac{3}{5}$d, the *Teſtoon* (No. 3) marked LXXX, but current for 100 Rees, worth $7\frac{1}{8}$d, the $\frac{1}{2}$ *Cruſade*, marked 200, but current for 240 Rees, worth 1s $3\frac{1}{4}$d, and the *Cruſade* (No. 5) marked 400, but current for 480 Rees, worth 2s $6\frac{3}{4}$ Sterling.

In Gold there is the *Cruſade* or *Crown*, or the 10th of a Moidore (No. 6) or 480 Rees, worth 2s $8\frac{1}{2}$d, a $\frac{1}{4}$ Moidore (No. 8) or 1200 Rees, worth 3s 6d, an $\frac{1}{2}$ *Moidore* or 2400 Rees, worth 13s 6d, a *Moidore* or 4800 Rees, worth 1l 7s, and a 5 Moidore piece, worth 6l 15s, which are marked 400, 1000, 2000, 4000 and 20000, but are current for 20 pr Ct more. There is alſo the 16th, an 8th, 4th, $\frac{1}{2}$ and whole *Joannes* (No. 10) current for 400, 800, 1600, 3200 and 6400 Rees, worth 2s 3d, 4s 6d, 9s, 18s and 36s Sterling, alſo a double *Joannes* at 12800 Rees or 3l 12s Sterling.

Accompts are kept in *Rees* and *Milrees* or 1000 Rees, ſeparating them by *Thouſands*. This Milree we exchange upon, and it is worth about 5s $7\frac{1}{2}$d Sterling.

It has been obſerved above, that none of the pieces either Gold or Silver are current at the value ſtruck upon them; and this has been the caſe ever ſince the year 1688, in which year there was an advance in the nominal value of $\frac{1}{5}$ or 20 pr Ct, which has continued to the preſent time; but all the pieces have the ſame types and the ſame values ſtruck on them as before the riſe, the Mark of Silver being coined into $6\frac{2}{5}$ Milrees, and Gold (of the ſame fineneſs) into $102\frac{2}{5}$ Milrees, and therefore the proportion was as 1 to 16. An alteration ſeems to have taken place in the year 1749, the Silver being coined at about 16 pr Ct worſe than before, which reduced the Gold ſo much, as little or no alteration appears to have been made in the Gold itſelf, and brought the proportion to between 13 and 14, which is leſs than in any other place in Europe.

Portugal. Pl. 13



J. Lodge Sculp.

Savoy and Piedmont.

In Copper there is current a *Picchaleon* (No. 1.) at 2 Deniers or ⅙ of a Sol, worth about ⅒ of a Penny, and a *Soldo* or 6 Picchalions (No. 2) worth ⅓ of a Penny.

In Billon there is a Piece current for 2½ Sols or ⅛ of a Lire, worth 1½ Penny, and another for 7½ Sols (No. 3) worth 4½ Pence Sterling.

In Silver there is an *Ecu* or Crown current for 6 Livres, worth about 6 Shill., the ½ for 3 Livres, worth 3 Shill., the ¼ (No. 4.) at 1½ Livres, worth 18 Pence, and the 8th at 15 Sols, worth 9 Pence Sterling.

In Gold there is an Ecu of the ſame value as that in Silver, or 6 Livres, worth 6 Shill., the double at 12 Liv., worth 12s, (No. 5) the quadruple at 24 Liv., worth 24s, and two others at 48 and 96 Livres, worth 2l 8s and 4l 16s.

In 1755, when the preſent *Money Foot* was eſtabliſhed, there was current a Ducaton at 5 Li. 10 Sol, a *Scudo* at 5 Livres, and one at 4½ Livres, a Zechine at 9 Li. 15 Sol, a Doppia at 17 Li. 6 Sol, and another at 18 Livres.

Accompts are kept in Livres, Sols and Deniers, alſo in Scudi of 3 Livres or 60 Sols, each Sol 12 Deniers.

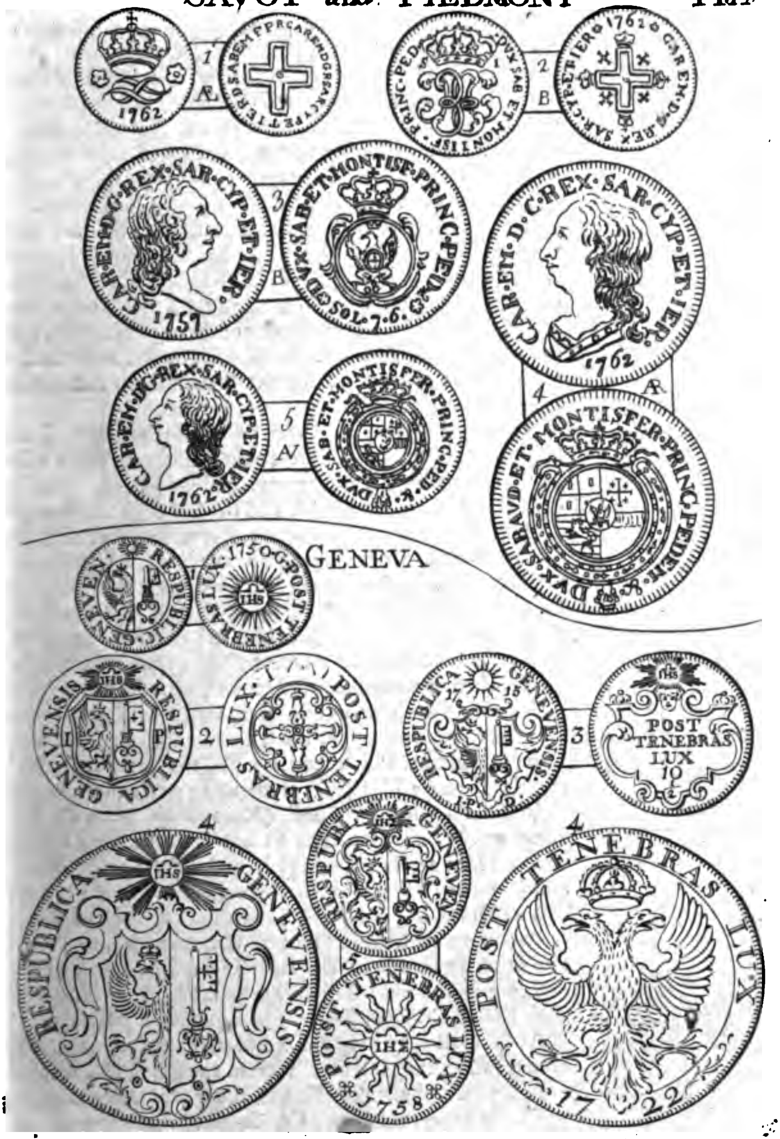
In Geneva there are in Billon an ½ Sol, (No. 1) worth about ⅕ of a Penny, a ¾ Sol, worth ⅓ of a Penny, a piece of 1½ Sol, worth ⅔ of a Penny, a 3 Sol piece (No. 2) worth 1¼d, and a piece of 6 Sols or ½ a Florin, worth 2½ Pence.

In Silver is the 10½ Sol piece, (No. 3) worth 4½d, the 21 Sol piece or ⅙ of a Patagon, worth 9 Pence, and the Patagon (No. 4) at 126 Sols, 10 Fl. 6 So. or 3 Li., worth near 4s 6d; and in Gold an old *Piſtole*, current for 40 Fl. 3 Sols, or 11 Li. 10 Sols, worth about 16s 8d, and a new one (No. 5) at 35 Fl. or 10 Li., worth near 15 Shill. Sterling.

Of the foreign money the *Bajoire* or *Ducaton*, is the only one in Silver which has a fixed value, being 3 Li. 15 Sols, and the *Mirliton* in Gold at 11 Li. 5 Sols; the reſt vary in value, as the Ecu of Straſburgh with BB from 3 Li. 12 So. 6 De. to 3 Li. 15 Sol. the Piſt. of Italy and Savoy from 11 Li. to 11 Li. 10 So., Ducats from 6 Li. 5 So. to 6 Li. 15 Sols, a Guinea at 14 Li. 3 Sols, and the French Ecu's and Louiſſes as in the next page but one.

Accompts are kept in Florins (worth 5d) of 12 Sols, (called money) or in Livres, Sols and Deniers (called current, and are imaginary) and 2 Livres current are equal 7 Florins money. A Livre is a trifle more than 17½d.

SAVOY and PIEDMONT


1
Æ
1762
F.P.R.CAR.EM.D.G.REX.CYP.ET.IER.D.SAB.E.M
2
B
PRINC.PED. DUX SAB ET MONT
1762 CAR.EM.D.G.REX.SAR.CYP.ET.IER.
3
B
CAR.EM.D.G.REX.SAR.CYP.ET.IER.
1757
DUX.SAB.ET.MONTISF.PRINC.PED.
SOL.7.6.
CAR.EM.D.G.REX.SAR.CYP.ET.IER.
1762
4
AR
DVX.SABAVD.ET.MONTISFER.PRINC.PEDEM.
5
AV
CAR.EM.D.G.REX.SAR.CYP.ET.IER.
1762
DVX.SAB.ET.MONTISFER.PRINC.PED.
GENEVA
1
RESPUBLIC.GENEVEN.
1750 G. POST TENEBRAS LUX
IHS
2
RESPUBLICA GENEVENSIS
IHS
I
P
POST TENEBRAS LUX
3
RESPUBLICA GENEVENSIS
17 15
I.P D.
IHS
POST TENEBRAS LUX
10
4
RESPUBLICA GENEVENSIS
IHS
5
RESPUBL GENEVEN
IHS
POST TENEBRAS LUX
IHS
1758
4
POST TENEBRAS LUX
1722

Bern, Lucern, Friburgh, Neuchatel.

In Billon there is a *Firer* or $\frac{1}{2}$ Cruche, worth $\frac{1}{6}$d, a *Cruche* (No. 1) or $\frac{1}{4}$ Bache, worth $\frac{5}{12}$d, a *Shilling* or $\frac{1}{3}$ Bache, worth $\frac{5}{9}$d, an $\frac{1}{2}$ Bache, wo. $\frac{5}{6}$d, a *Bache* (No. 2) worth $1\frac{2}{3}$d Ster.

In Silver is a $2\frac{1}{2}$ Ba. or 10 Cr. (No. 3) worth 4d, a 5 Ba. or 20 Cr. (No. 4) worth 8d, a 10 Ba. or 40 Cr. (No. 5.) wo. 1s $4\frac{1}{4}$d, a 20 Ba. or 80 Cr. wo. 2s $8\frac{1}{2}$d, and a *Patagon* at 33 Ba. or 132 Cruches, worth 4s 6d Sterling.

In Gold there is a *Ducat* current for 70 Bache ≐.

The foreign money taxed or permitted to paſs are in Silver the *Bajoire* or Ducatone at 42 Ba., Straſburgh Ecu with BB at 37 Ba. 4 Cr., another ditto of 30 Sols at 14 Ba., Pieces of eight at 35 Ba., Genouine at 50 Ba., new Ecu of Savoy 45 Ba. In Gold are the Ital. and Savoy Piſt. at 121 Ba., the new Savoy Piſt. at 180 Ba., the Fl. Sover. at 95 Ba., the Liſbonine at 270 Bache, and the French Ecu's and Louiſſes as in the next page.

Accompts are kept in Crones of 25 Baches, or in Livres, Sols and Deniers, each Livre 20 Sols, and each Sol 12 Den. N. B. The Crone is imaginary, and wo. 3s 5d, the Livre equal 10 Ba., and wo. $16\frac{1}{4}$d, and the Sol eq. 2 Cr. wo. $\frac{5}{6}$d.

At Zurich are cur. in Billon a *Rap* or *Angſter*, or $\frac{1}{6}$ Shil. wo. $\frac{1}{9}$d, a $\frac{1}{4}$ Sh. (No. 8) and $\frac{1}{2}$ Sh. at $1\frac{1}{2}$ and 3 Raps, wo. $\frac{1}{6}$d and $\frac{1}{3}$d, a *Shilling* (No. 7) or $1\frac{1}{2}$ Cr., wo. $\frac{2}{3}$d, a *Bache* of 16 to a Fl. wo. $1\frac{3}{4}$d. In Silver a $\frac{1}{4}$ Fl. or 15 Cr. wo. $6\frac{3}{4}$d, an $\frac{1}{2}$ Fl. or 30 Cr. wo. $13\frac{1}{2}$d, a *Patagon* (No. 12) at 2 Flo. or 120 Cr., wo. 4s 6d, and in Gold a Ducat (No. 13) at 4 Fl. 18 Cr.

The French money allowed to paſs, is in the next page.

Accompts are kept in Flo. of 60 Cr., each 8 Hellers, and are either cur. or change, the laſt exceeding the firſt, as the value of the Spa. Piſt. exceeds 7 Fl., the Patagon 108 Cr., and the Ducat 3 Fl. 54 Cr. or abont 10 pr Ct more or leſs.

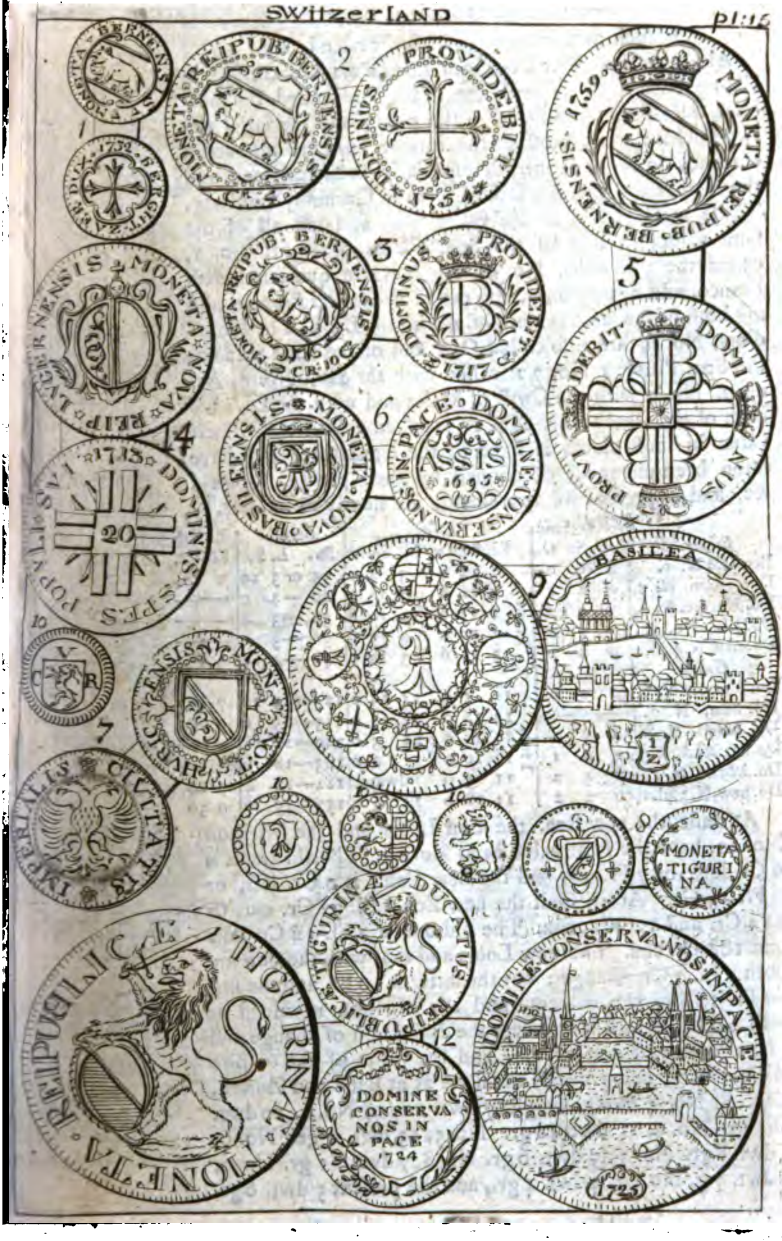
In Baſle is a Rap or $\frac{1}{6}$ Shil. (No. 10) wo. $\frac{1}{6}$d, a Cr. at $2\frac{1}{2}$ Raps, wo. $\frac{1}{2}$d, an $\frac{1}{2}$ Ba. (No. 6) wo. 1d, a Ba. or 4 Cr., wo. $1\frac{4}{5}$d, a Fl. at 15 Ba., wo. $13\frac{1}{4}$d, and a Patagon, $\frac{1}{2}$ (No. 9) and $\frac{1}{4}$ at 120, 60 and 30 Cr., wo. 54d, 27d and $13\frac{1}{2}$d Ster.

The Ducat is 4 Fl. 10 Cr., and the French as next page.

Accompts are kept in Fl. of 60 Cr., each Cr. at 5 Pf., cur. alſo in R. Doll. of 108 Cr. or 3 Livres of 20 Sols change, differing as the old value of the Spa. Piſt. at 11 Li. 13 So. for 7 Fl. 38 Cr. does from 7 Fl., or about 9 pr Ct.

At St. Gall they have cur. value and change value, but at no fixt ratio; the moſt uſual is from the Spa. Piſt., reckoned at 6 Fl. 36 Cr. cha., and 7 Fl. 41 Cr. cur., differing about $16\frac{1}{4}$ pr Ct. In others is is 25 pr Ct. See the French in next page.

SWItzerlAND pl:16



French money current in Switzerland, &c.

Although no other Ecu's nor Louisd'ors are current in France, but thoſe coined ſince 1726, and called the new ones, alſo the firſt called with the palm, and the latter the two ſhields; yet almoſt all the former ones are allowed a currency in other countries, eſpecially in Switzerland and the Netherlands, and a few of them in Germany and Italy. Thoſe marked No. 1. are called *Old*, and are all of the ſame value, or that of the Spa. Pieces of eight, No. 2, called the 3 *Crowns*, No. 3, the Navarre quartered with France, and France only, alſo called *Bidets* and *Poupons*, and are both of the ſame value, No. 4 with the LL's. The Louis-d'ors, No. 6, are alſo called *Old*, and of the ſame value as the Spa. Piſtole; No. 7 is called with *the Sun*, No. 8, *Noailles*, No. 9 with the Croſs of Malta and with the LL's are both of the ſame value. No. 10 is called a Mirliton. Their value in moſt places is fixed by the legiſlature, and have often been changed, occaſioned by their plenty, ſcarcity, &c. and at preſent we apprehend, are nearly as follows.

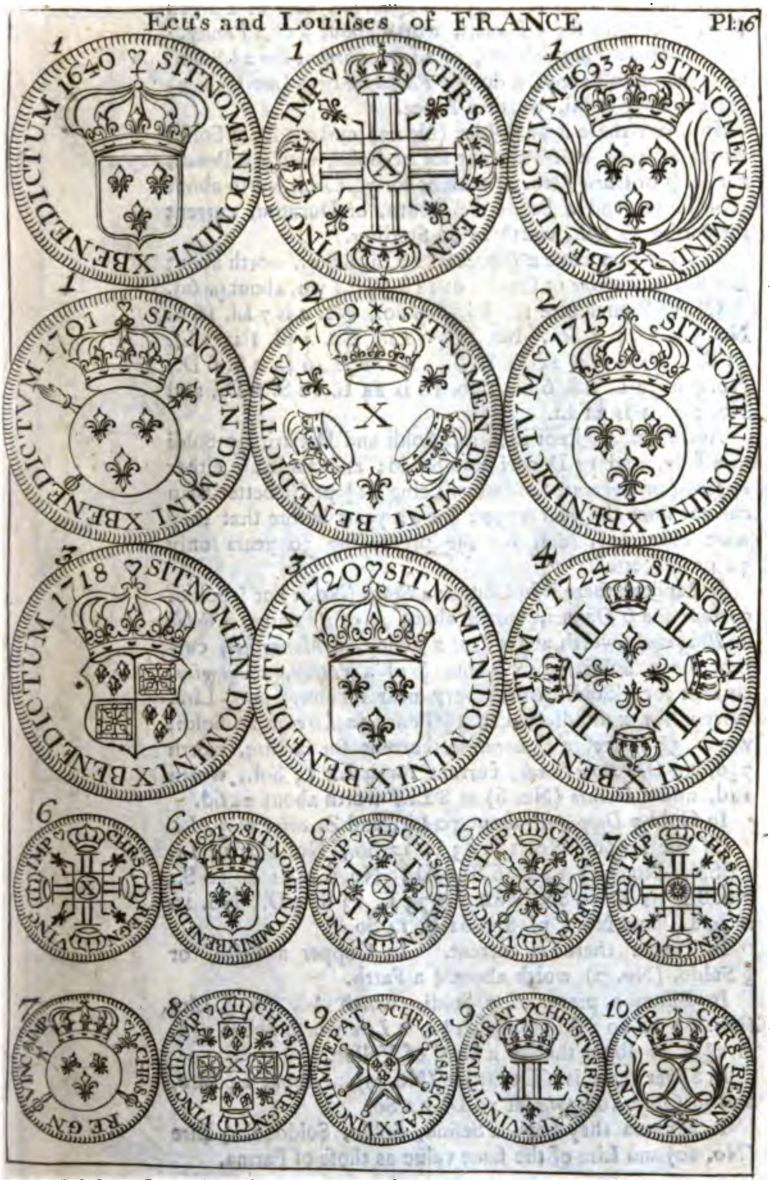
	Netherland				Geneva.							Berne.			Zurich	
Silver.	Sch.	St.	O.		Li.	So.	D.		Li.	So.	D	Ba.	L.	So.	Fl.	Cr.
Ecu Old N. 1.	8	0	0		3	2	6		3	5	0	35	or 3	10	2	8
Do. 3 Cro. N. 2.	9	2	1		3	12	6		3	15	0	40	—4	0	——	
Do. Na. &c. N. 3.	7	3	2	From	2	17	0	To	2	19	6	32	—3	4	——	
Do. LL, No. 4	7	1	0		2	15	0		2	17	6	30	—3	0	——	
Do. new N. 4, pl. 1	9	2	1		3	12	6		3	15	0	40	—4	0	2	24
Gold.																
Lo. d'or old N. 6.	30	0	0		11	5	0		11	15	0	125	or 12	10	7	42
Do. Sun, N. 7.	——				13	18	0		14	18	0	153	—15	6	9	24
Do. Noail. N. 8.	54	5	1	From	20	15	0	To	21	5	0	229	—22	18	——	
Do. Ma. &LL, N. 9	43	4	1		16	10	0		17	0	0	183	—18	6	——	
Do. Mirlit. N. 10	28	4	2		11	5	0		always			122	—12	4	7	24
Do. new, N. 5, pl. 1	36	2	2		13	18	0		14	8	0	153	—15	6	9	36

At Baſle the new Ecu, the Sun Louis and the Mirliton No. 10, have the ſame value as at Zurich. The old Louis is 6 Cr. leſs, or 7 Fl. 36, and the new Louis is 9 Cr. leſs, or 9 Fl. 15 Cr. At St. Gall the new Ecu 2 Fl. 32 Cr. cur. or 152 Cr. and 126 Cr. cha. The old one is 2 Fl. 12 Cr. cur. and 108 Cr. cha. The new Louis and that with the Sun are both 8 Fl. 3 Cr. change; but the latter is 10 Fl. and the firſt 10 Fl. 10 Cr. ± current, and the Mirliton is valued at 7 Fl. 40 Cr. cur. But however the diſtinction of change and cur. are growing out of uſe, and the value of the empire taking place, being nearly the ſame as at Baſle and Zurich.

N. B. No. 1 ſhould weigh 17 dwt. 12 gr., No. 2, 19 dwt. 16½ gr. No. 3, 15 dwt. 18 gr. No. 5, 15 dwt. 1 gr. No. 6, 4 dwt. 8 gr. No. 7, 5 dwt. 6 gr. No. 8, 7 dwt. 21 gr. No. 9, 6 dwt. 7 g. No. 10, 4 dwt. 4 gr., and the preſent 5 dwt. 6 gr.

Ecu's and Louiſses of FRANCE

Pl:16


1
1640 SIT NOMEN DOMINI BENEDICTUM
1
IMP CHRS REGN VINC
1
1693 SIT NOMEN DOMINI BENEDICTVM
1
1701 SIT NOMEN DOMINI BENEDICTVM
2
1709 SIT NOMEN DOMINI BENEDICTVM
X
2
1715 SIT NOMEN DOMINI BENEDICTVM
3
1718 SIT NOMEN DOMINI BENEDICTUM
3
1720 SIT NOMEN DOMINI BENEDICTUM
4
1724 SIT NOMEN DOMINI BENEDICTUM
6
IMP CHRS REGN VINC
6
1691 SIT NOMEN DOMINI BENEDICTVM
6
IMP CHRS REGN VINC
6
IMP CHRS REGN VINC
7
IMP CHRS REGN VINC
7
VINC IMP CHRS REGN
8
IMP CHRS REGN VINC
9
CHRISTUS REGNAT VINCIT IMPERAT
9
CHRISTVS REGNAT VINCIT IMPERAT
10
IMP CHRS REGN VINC

In Milan there is in Copper a *Quatrino*, or ⅓ of a Soldo (No. 1) current for 4 Danari, worth about 1/7 of a Penny.

In Billon a *Parpajole* or ⅛ of a Lire, current for 2½ Soldi, worth about a Penny, a double *Parpajole* or ¼ Lire (No. 2) current for 5 Soldi, worth 2 Pence.

In Silver there is an ½ Lire (No. 3) current for x Soldi, worth 4 Pence, a *Lire* current for 20 Soldi, worth 8 Pence, a *Phillip* or *Carlo* (No. 4) current for 7½ Lire, worth about 5 Shillings, and a Scudo d'Argento, or Ducaton, current for 8 Lire 12 Sol., worth 5s 8d Sterling.

In Gold they have a *Doppia* at 25 Li. 8 Sol., worth about 16s 8d, a *Zecchine* or *Ongaro* at 14 L. 8 S., wo. about 9s 6d.

Of the French No. 1 is 6 Li. 19 So., No. 2 is 7 Li. 16 S. No. 3 is 6 Li. 5 So., No. 4 is 6 Li., No. 4 pl. 1 is 7 Li. 11 So., No. 6 is 25 L. 10 S., No. 8 is 46 L. 2 S. 6 D., No. 9 is 37 L. 2 S. 6 D., No. 10 is 24 L. 12 S. 6 D., and No. 5 pl. 1 is 31 Li.

Accompts are kept in Lire, Soldi and Danari, 20 Soldi to a Lire, and 12 Danari to a Soldo; and theſe are either *Imperial* or *Current*, the former being 41½ pr Ct better than current ſince the year 1750; for 12 years before that they were only 37¾, and for the preceeding 50 years only 32 pr Ct better.

In Modena there is in Copper a *Seſino* (No. 5) or ½ Soldo, current for 6 Danari, worth about 1/16 of a Penny, a *Soldo* or *Bolognino*, worth about ⅕ of a Penny, a *Muragliole*, current for 2 Soldi, worth about ⅖ of a Penny, a *Georgine*, current for 5 Soldi, worth very near 1 Penny, an ½ Lire, current for x Soldi, worth 1⅞ Pence, a *Lire* or 20 Soldi, worth 3¾ Pence, a *Qnarentine*, current for 2 Lire, worth 7½d, an *Old Baſe Scudo*, current for 3 Li. 15 Sol., worth 14d, and a *Ducato* (No. 6) at 8 Li., worth about 2s 6d.

In Gold a *Doppia* at about 50 Li., and *Zecchine* at 30 Li.

Of the French No. 1 is 13 L. 12 So., No. 2 is 15 Li. 12 So., No. 3 is 12 L. 6 S. 8 D., No. 6 is 51 L. 10 S., No. 8 is 91 L. 10 So., No. 9 is 73 L. 13 S. 4 D., No. 10 is 49 L., and No. 5 pl. 8 is 61 L. 14 So.

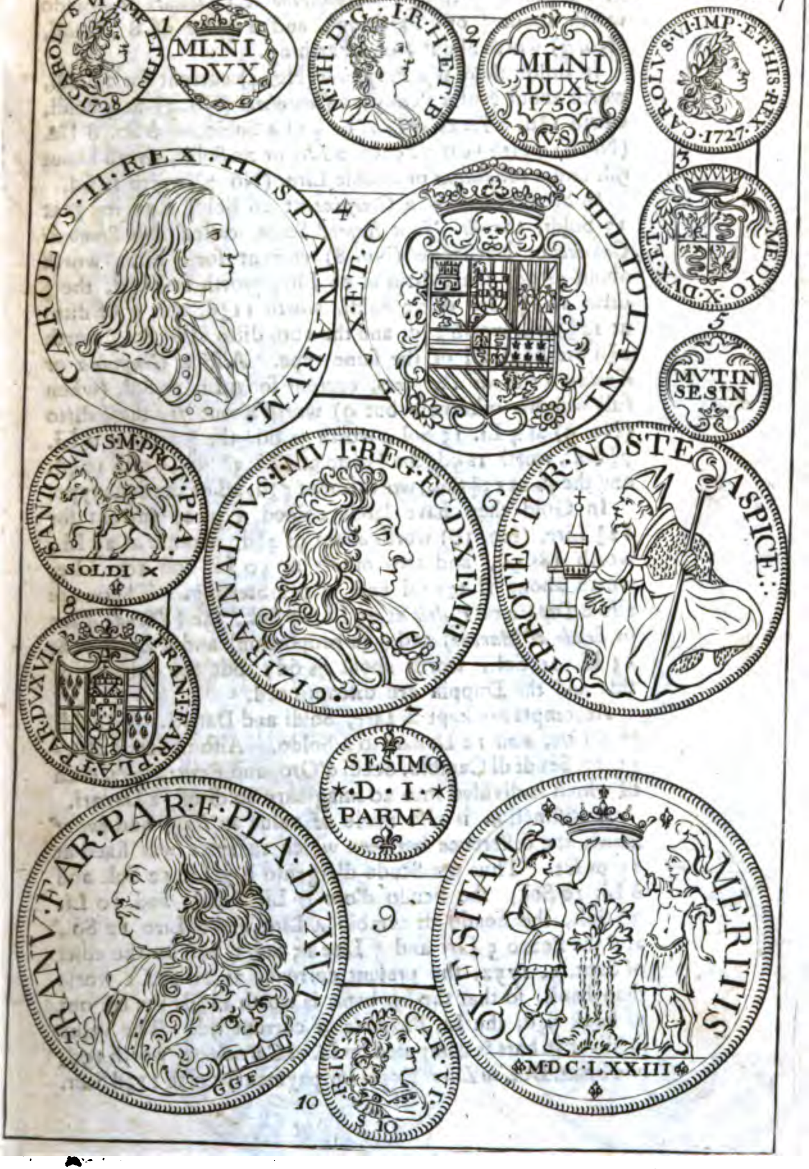
In Parma there is current. In Copper a *Seſino*, or ½ Soldo, (No. 7) worth about ½ a Farth.

In Billon a piece of 5 Soldi, worth ⅝d, an ½ Lire (No. 8) at 10 Soldi, worth 1¼d, a *Lire* worth about 2½d, or 2¾d, or about that of a Ryal of Vellon.

In Silver there is a Ducatone (No. 9) at about 24 Lire, and in Gold a *Doppia* at 72 Li. 12 So.

In Mantua they have a Seſino, Soldo, Soldone, ½ Lire (No. 10) and Lire of the ſame value as thoſe of Parma.

MILAN. MODENA. PARMA. Pl:17


1
CAROLVS VI IMP ET HIS 1728
MLNI DVX
2
M·TH·D·G·I·R·H·ET·B
MLNI DUX 1750 VS
CAROLVS·VI·IMP·ET·HIS·REX·1727
3
MEDIO·X·DVX·ET·
4
CAROLVS·II·REX·HISPANIARVM·
MEDIOLANI ET C
5
MVTIN SESIN
SANTONNVS M·PROT·PLA
SOLDI X
8
FRAN·I·FAR·PLA·I·PAR·DVX·VII
6
1701·RAYNALDVS·I·MVT·REG·EC·D·X·IMP·
PROTECTOR·NOSTE·ASPICE·1691
7
SESIMO ·D·I· PARMA
RANV·FAR·PAR·E·PLA·DVX·VI
GGF
9
CONSITAM MERITIS
MDC·LXXIII
10
R·IS·CAR·VI·
S 10

In Genoa are the following coins.

In Copper a *Duetto* (No 1) current for 2 Danari, worth nearly $\frac{1}{7}$ of a Farthing; a *Quattrino* at 4 Danari or $\frac{1}{3}$ Soldo worth about $\frac{1}{4}$ of a Farthing; and a piece of 8 Danari, (No. 3) worth about $\frac{3}{5}$ of a Farthing.

In Billon there is a *Parpaiole* (No. 4) current for 2 Soldi, worth about $\frac{4}{5}$ of a Penny; a *Cavalotto* (No. 5) at 4 Soldi, worth 1$\frac{3}{4}$d, a *Terzo di Lire*, or $\frac{1}{3}$ of a Soldo, or 6 So. 8 Da. (No. 6) worth near 3 Pence, a *Lire* or 20 Soldi, worth about 9d, and a *Madonina* or double Lire, (No 7) worth 1s 6d.

In Silver there is a *Georgine* at 26 Soldi, and its $\frac{1}{2}$ at 13 Soldi, the *St. John Baptiſt Scudo*, called alſo *Scudo di Cambio* or Exchange (No. 8) current for 5 Lire, worth about 3s 9d, the $\frac{1}{2}$ ditto at 2$\frac{1}{2}$ Lire, worth 1s 10$\frac{1}{2}$d, the $\frac{1}{4}$ ditto at 1$\frac{1}{4}$ Lire or 25 Soldi, worth 11$\frac{1}{4}$d, the $\frac{1}{8}$ of ditto at 12$\frac{1}{2}$ Sol., worth 5$\frac{5}{8}$d, and the 16th ditto at 6$\frac{1}{4}$ Sol., worth 2$\frac{3}{4}$d Sterling, all of the ſame type. Alſo a *Genovina* or *Croizat* or *Scudo d'argento*, current for 9 Li. 10 Sol. (when full weight, otherwiſe but 9) worth about 7s, the $\frac{1}{2}$ ditto (No. 9) at 4 Li. 15 Sol., worth 3s 6d, the $\frac{1}{4}$ ditto at 2 Li. 7$\frac{1}{2}$ Sol., worth 1s 9d, the $\frac{1}{8}$ ditto at 1 Li. 3$\frac{3}{4}$ Sol., worth 10$\frac{1}{2}$d, and the $\frac{1}{16}$ at 13$\frac{3}{4}$ Sol., worth about 5$\frac{1}{4}$d, all of the ſame type.

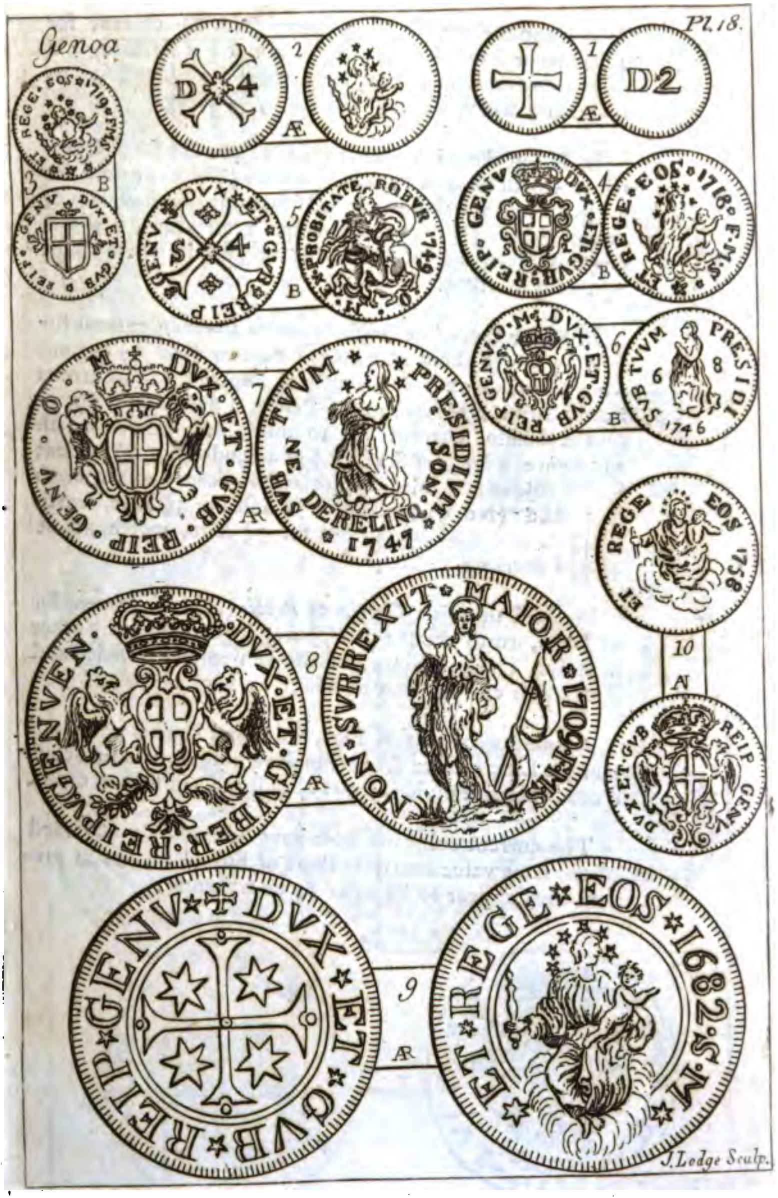
In Gold they have lately coined a piece current for 12$\frac{1}{2}$ Lire, (No. 10) worth about 9s 4$\frac{1}{2}$d, another at 25 Li., worth 18s 9d, and two others at 50 Li. and 100 Lire, worth about 1l 17s 6d and 3l 15s Sterling. There are alſo a *Doppia* or *Piſtole* at 23 Li. 12 Sol., the $\frac{1}{2}$ (*Scuda d'oro* or *Scudo di Marche*) and $\frac{1}{4}$ in proportion, and a *Zecchine* at 13 Li. 10 Sol., worth about 9s 6d; but the coinage of this and the Doppia are diſcontinued.

Accompts are kept in Lire, Soldi and Danari. 20 Soldi to a Lire, and 12 Danari to a Soldo. Alſo in Scudi d'Argento, Scudi di Cambio, Scudi d'Oro. and *Pezzi d'otto*; each of which is divided into 20 imaginary Soldi of 12 Danari.

A diſtinction is alſo made of value *in Bank* and *out of Bank*, the difference between which in 1741 was fixed at 15 pr Ct. Thus the Scudo d'argento is 7 Li. 12 Sol. and 8 Li. 16 Sol., the Scudo d'oro 9 Li. 8 Sol. and 10 Li. 3$\frac{1}{2}$ Sol., the Scudo di cambio 4 Lire and 4 Lire 12 So., and the Pezzo 5 Lire and 5 Lire 15 Sol.; but by the edict of Sept. 5, 1752, the preſent currency is 25 pr Ct worſe than bank, ſo that the Li. bank is worth 11$\frac{1}{4}$d, the Li. out of bank 9$\frac{3}{5}$d, the Li. *Picchiola* or current 9d. The value of Silver in bars is computed by *Li. di Cartulario*, worth 19d, and Span. Dol. in *Li. di Pagbi* (or payment) worth 11$\frac{7}{8}$d Ster.

Genoa

Pl. 18.



J. Lodge Sculp.

Lucca.

In Copper there is a *Quattrino* (No. 1) current for 4 Danari or ⅓ of a Soldo, worth about ½ a Farthing; a *Seſino* or *mezzo Soldo*, (No. 2) current for 1½ Quattrins or 6 Danari, worth about ⅕ of a Penny Sterling.

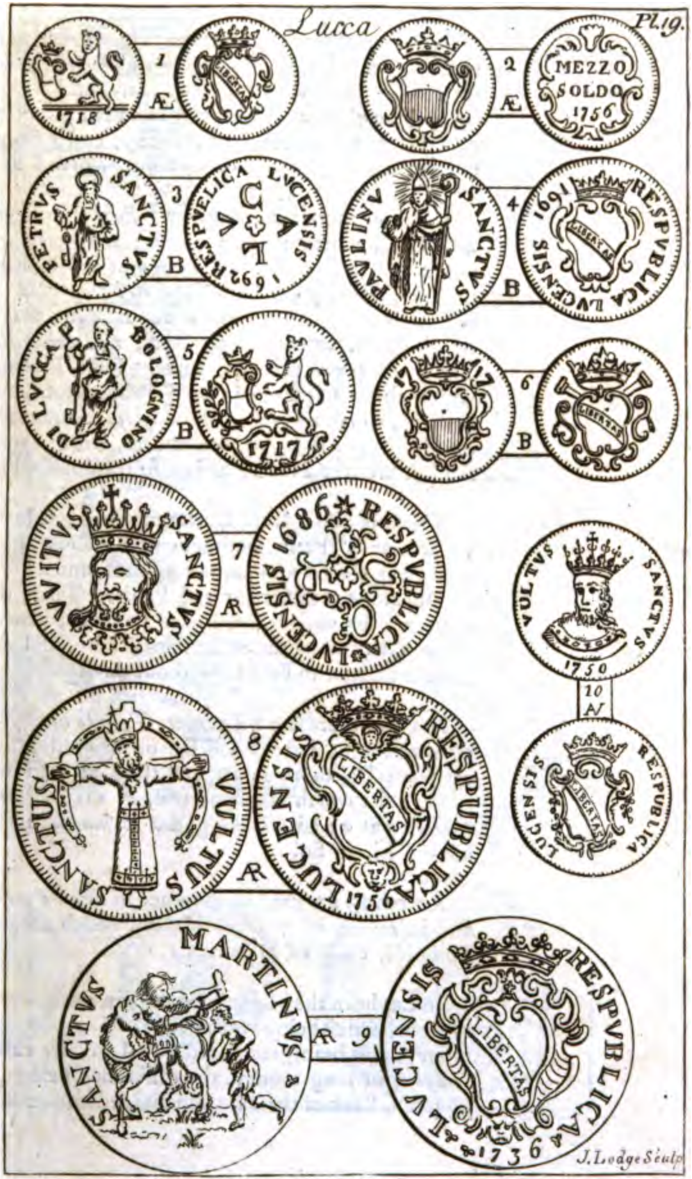
In Billon there is a *Duetto* (No. 3) current for 2 Quattrins, worth about a Farthing, a *Soldo* (No. 4) current for 3 Quattrins, worth about 3 half farthings, a *Bolognino* or double Soldo (No. 5) worth about 3 farthings, a *mezzo Groſſo* or ½ Groſs (No. 6) current for 3 Soldi, worth about 1⅛ Pence Sterling.

In Silver there is a *Groſſo* or *mezzo Barbone*, current for 6 Soldi, worth about 2¼ Pence, a *Barbone* (No. 7) current for 2 Groſs or 12 Soldi, worth 4½ Pence, a *Lire*, current for 20 Soldi, worth about 7½ Pence, a *Quinto di Scudo*, or ⅕ of a Scudo, current for 30 Soldi, or 1½ Lire, worth 11¼ Pence, a *Terzo di Scudo* or ⅓ of a Scudo (No. 8) current for 50 Soldi or 2½ Lire, worth 18¾ Pence, a *mezzo Scudo* or ½ Scudo (No. 9) current for 75 Soldi or 3½ Lire, worth 2s 4¼ d, and a *Scudo*, current for 7½ Lire, worth about 4s 8¼d Sterling.

In Gold there is a *Doppia* or *Piſtole* (No. 10) current for 22 Lires, worth about 13s 9d, being lighter than any other in Italy. The Zecchines likewiſe of Venice, Florence and Rome paſs current here at about 15 Lire.

Accompts are kept in Lire, Soldi and Danari; 20 Soldi make a Lire, and 12 Danari make a Soldo; alſo in Scudi d'oro, which are divided into 20 Soldi and 240 Danari d'oro.

The current coins in Lucca have been uſually eſteemed of the ſame value nearly as thoſe of Florence; but at preſent they appear to be near 20 pr Ct worſe.


Lucca
Pl. 19.
1
Æ
1718
LIBERTAS
2
Æ
MEZZO SOLDO 1756
3
B
SANCTVS PETRVS
RESPVBLICA LVCENSIS 1692
C V V L
4
B
SANCTVS PAVLINV
1691 RESPVBLICA LVCENSIS
LIBERTAS
5
B
DI LVCCA BOLOGNINO
1717
6
B
17 12
LIBERTAS
7
Æ
SANCTVS VVLTVS
1686 RESPVBLICA LVCENSIS
8
Æ
SANCTUS VULTUS
RESPUBLICA LUCENSIS 1756
LIBERTAS
9
Æ
SANCTVS MARTINVS
RESPVBLICA LVCENSIS 1736
LIBERTAS
10
AV
VOLTVS SANCTVS
1750
RESPUBLICA LUCENSIS
LIBERTAS
J. Lodge Sculp.

Coins in Florence and Leghorn.

In Billon there is a *Quattrino* (No. 1) current for 4 Danari, worth about $\frac{1}{7}$ of a Penny; a *Duetto* (No. 2) current for 2 Quattrins, worth $\frac{2}{7}$ of a Penny, an $\frac{1}{2}$ Crazie (No. 3) or 2$\frac{1}{2}$ Quattrins, worth about $\frac{3}{8}$ of a Penny; a Soldo (No. 4) or 3 Quattrins, worth $\frac{3}{7}$ of a Penny, and a *Crazie* (No. 5) current for 5 Quattrins or 1$\frac{2}{3}$ Soldi, worth $\frac{5}{7}$ of a Penny.

In Silver there is a *Mezzo* or $\frac{1}{2}$ *Paul* (No. 6) current for 4 Crazies, worth about 3 Pence; a *Mezzo Lira* (No. 7) current for 6 Crazies, worth about 4$\frac{7}{8}$ Pence; a *Paolo* or *Giuli*, uſually called a *Paul* or *Jule* (No. 8) or $\frac{2}{3}$ of a Lira, or 8 Crazies, worth about 6d; a *Lire* (No. 9) or 1$\frac{1}{2}$ Pauls, worth about 8$\frac{3}{4}$d; a *Double Paul*, worth 11$\frac{1}{3}$d; a *Teſtoon* (No 10) current for 2 Lire or 3 Pauls, worth about 17$\frac{1}{2}$ Pence; an $\frac{1}{2}$ Franceſconi, or piece of 5 Pauls, worth 2s 5$\frac{1}{2}$d; a *Franceſconi*, current for 10 Pauls or 6$\frac{2}{3}$ Lire, or 6 Li. 13 Sol. 4 Da., worth 4s 11d. Both the laſt are like No. 8, as is alſo the double Paul.

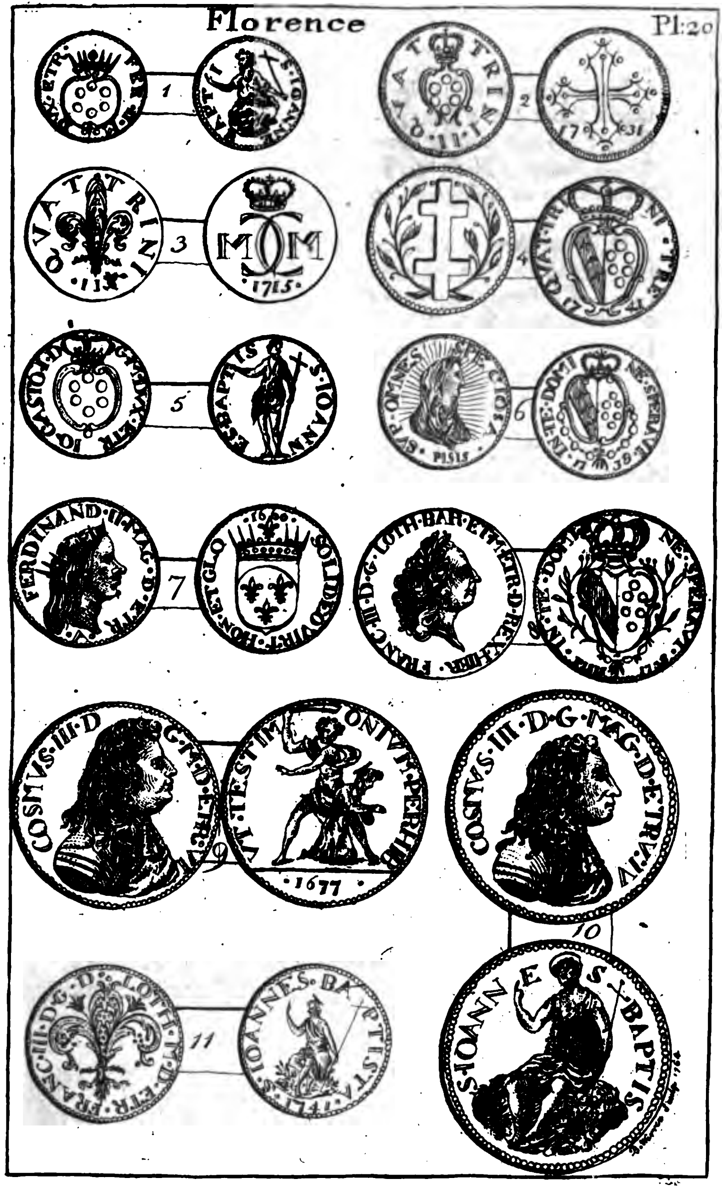
There is alſo a Roſe Dollar or *Pezzo*, valued at 5 Lire 15 Sol. or 8$\frac{5}{8}$ Pauls, another called a *Livornine*, Lanthorn or Tower Dollar at 6 Lire or 9 Pauls, and a *Piaſtre*, Ducat or Ducatone at 7 Lire or 10$\frac{1}{2}$ Pauls. Theſe three pieces appear to be undervalued near 10 pr Ct, when compared with that of the Franceſconi at 6$\frac{2}{3}$ Lire, and therefore we ſuſpect ſeldom to be had without an Agio.

In Gold there are a *Zecchine*, *Gigliato* or *Ruſpo* (No. 11) current for 13 Li. 6 So. 8 Da. or 20 Pauls, the $\frac{1}{2}$ at 6 Li. 13 So. 4 Da. or 10 Pauls, and the $\frac{1}{4}$ at 3 Li. 6 So 8 Da. or 5 Pauls, worth about 9s 10d, 4s 11d and 2s 5$\frac{1}{2}$d; alſo a *Doppia* at 23 Li. 10 So. and a *Roſina* and its $\frac{1}{2}$ at 25 Li. and 12 Li. 10 So.

Accompts are kept in Florence in *Scudi d'oro* of 7$\frac{1}{2}$ Lire, and in *Ducats* of 7 Lire, both of which are divided into 20 Soldi, each 12 Danari.

In Leghorn they keep accompts in *Pezzi d'otto* or Pieces of eight, which being reckoned at 5 Li. 15 So. is called *good* money, and being eſtimated at 6 Lire, are called *Monet a Lungha*, or long money, the difference being $\frac{1}{23}$ or about 4$\frac{1}{2}$ pr Ct. Each of theſe are alſo divided into 20 So. of 12 Da.

Florence Pl:20



Rome.

In Copper there is a *Quatrino* (No. 1) or ⅕ of a Bajocco, worth about ⅑ of a Penny, a mezzo Bajocco, or ½ Bajocco (No. 2) worth 2/7 of a Penny, and a *Bajocio*, worth about 4/7 of a Penny. N. B. At Bologna the Quatrin is but ⅙ of the Bajocco or Bolognino, or ⅒ of a Penny.

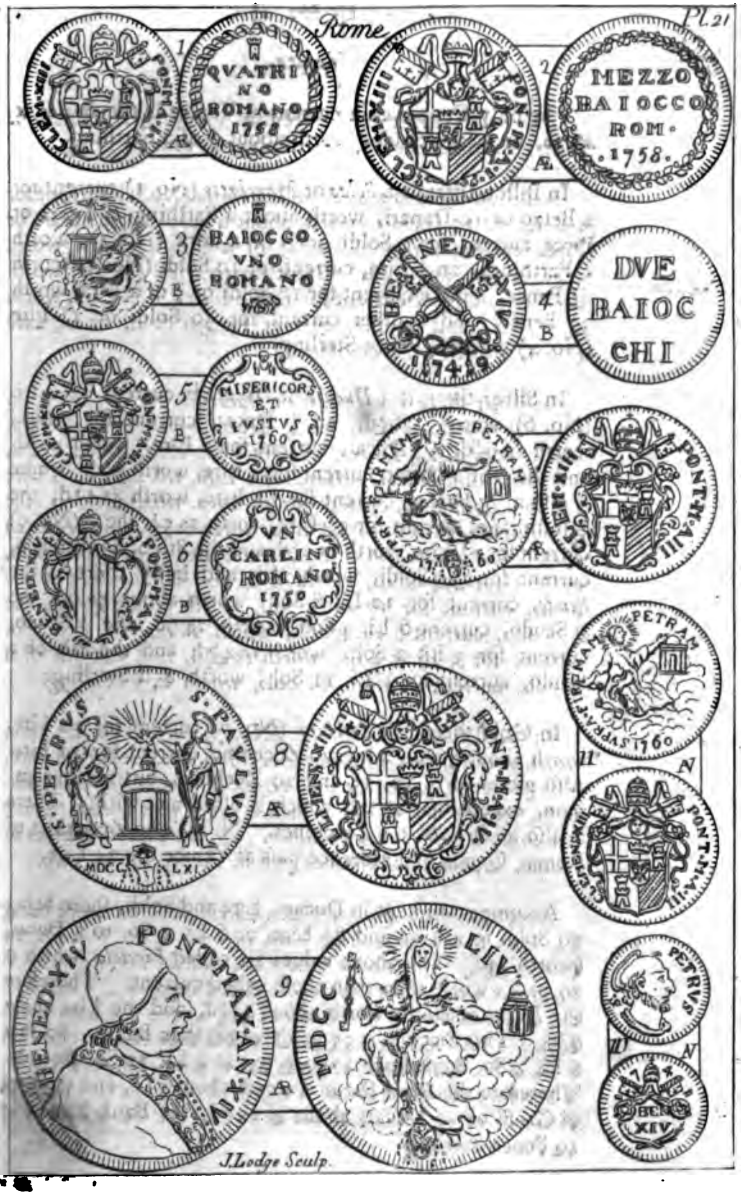
In Billon there is a Bajocchello (or little Bajocco) current for 5 Quatrins (No. 3) worth a trifle more than ½ Penny, i. e. 4/7 of a Penny, a piece of 2 Bajocci (No. 4) worth 1⅛d, a piece current for 4 Bajocci worth 2¼d, a *Carlino Romano* (No. 6) current for 4⅕ Pence, and a double Roman Carlin, current for 15 Bajocci, worth 8⅖ Pence. N. B. The coining of theſe 2 ſorts were ſoon diſcontinued.

In Silver there is a mezzo, or ½ Groſſo, or ¼ Paul, current for 2½ Bajocci, worth 1½ Pence, a Groſſo or ½ Paul (No. 5) worth 2⅘ Pence, a *Paolo* or *Giulio* (No. 7) current for 10 Bajocci, worth 5⅗ Pence, a *Papetto*, current for 2 Pauls or Jules, worth 11 Pence, a *Teſtoon* (No. 8) current for 3 Pauls or Jules, worth 17 Pence, a Mezzo or ½ Scudo (No. 9) current for 5 Pauls or Jules, worth 2s 4d, and a *Scudo* or *Crown*, current for 10 Pauls or Jules, worth 4s 8d Ster.

In Gold there is a *Quartino di Zecchine* or ¼ Zecchine (No. 10) current for 5 Pauls or Jules, as No. 9, worth 2s 4d, a mezzo Zecchine, current for 10¼ Pauls or Jules, 4s 9½d, and a Zecchine (No. 11) current for 20½ Pauls or Jules, worth 9s 7d. There is alſo a *Doppia* or *Piſtole*, valued at 33 Pauls or Jules (but they coin no more of them) The Spaniſh Doppia paſſes for 36 Pauls or Jules, and the *Ongaro* or *Ducat* at about 20 Pauls or Jules more or leſs.

Accompts are kept in Scudi, Pauli and Bajocci, each Scudo conſiſting of 10 Pauls, and each Paul of 10 Bajocci. They alſo compute by an imaginary Scudo d'oro di Stamp of 15½ Jules or Pauls (about 7s 3d) divided into 20 Soldi, each into 12 Danari.

Rome



J.Lodge Sculp.

Venice.

The only Copper coin current at Venice is the *Betzo* or *Betzo*, or mezzo Soldo, worth about ½ of a Farthing.

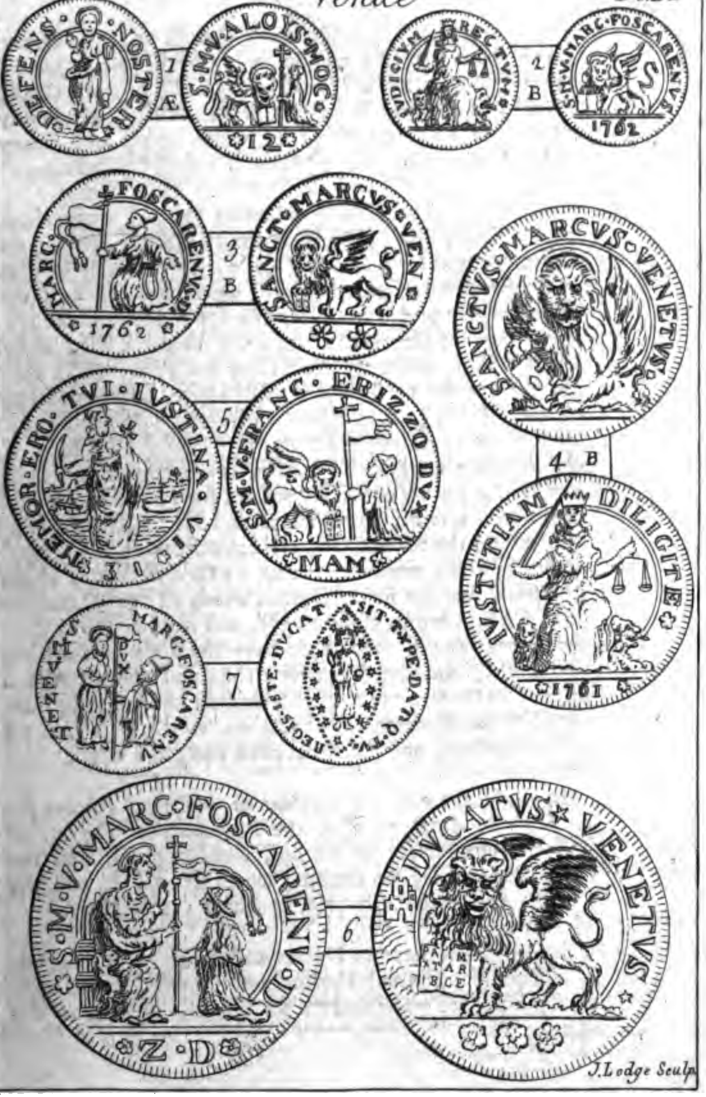
In Billon there is a *Soldo* or *Marchetto* (No. 1) current for 2 Betzo or 12 Danari, worth about a Farthing, a *Trara* or Piece current for 5 Soldi or ¼ of a Lira (No. 2) worth 5 Farthings, an ½ Lira, current for 10 Soldi (No. 3) worth 2½ Pence, a piece current for 15 Soldi or ¾ of a Lira, worth 3¾ Pence, and another current for 30 Soldi or 1½ Lire (No. 4) worth 8 Pence Sterling.

In Silver there is a *Ducato* or *Ducatello*, current for 8 Li. (No. 6) worth 3s 6½d, an ½ Ducat, current for 4 Lire, worth 1s 9½d, a ¼ Ducat, current for 2 Lire, worth 10⅜d, and the ⅛ of a Ducat, current for 1 Lire, worth 5⅓d. There is alſo a *Juſtiniano*, current for 11 Lire, worth 4s 11d, the ½ Juſtiniano, current for 5½ Lire, worth 2s 5½, the ¼ (No. 5) current for 2¾ Lire, worth 1s 2¾d, and the 8th of a Juſtiniano, current for 27½ Soldi, worth 7⅜d, and laſtly there is the *Scudo*, current for 12 Li. 8 Sol., worth about 5s 6d, the ½ Scudo, current 6 Li. 4 Sol., worth 2s 9d, the ¼ Scudo, current for 3 Li. 2 Sol., worth 1s 4½d, and the 8th of a Scudo, current for 1 Li. 11 Sol., worth 8¼d Sterling.

In Gold there is a *Zecchine* (No. 7) current for 22 Lire, worth about 9s 8d, a mezzo Zecchine, current for 11 Lire. Alſo pieces of 5, 10, 15 and 20 Zechines, but not in common, except that of 10, which is often met with. There is alſo an *Ochello* at 4 Zecchines. N. B. The Zecchines of Rome, Genoa and Florence paſs at Venice for 21 Lire.

Accompts are kept in Ducats, Lire and Soldi, there being 20 Soldi to a Lira, and 6⅕ Lire, or 6 Li. 4 So. to a Ducat; (worth 33d) The above values are called *Picciola*, which is 29 pr Ct worſe than than thoſe called current. Therefore the *Duçat-current* is worth about 42½d, and the Lira about 6⅞d. This Picciola is 55 pr Ct worſe than Bank. So that 6 Li. 4 So. Bank ſince 1750 is fixt at 9 Li. 12 So. Picciola. Thereſore the *Bank Ducat* is worth about 51d, and the Lira di Groſſi of 10 Ducats about 2l 2s 6d, the Bank Lire near 10 Pence Sterling.

Venice Pl.22



J.Lodge Sculp.

Naples.

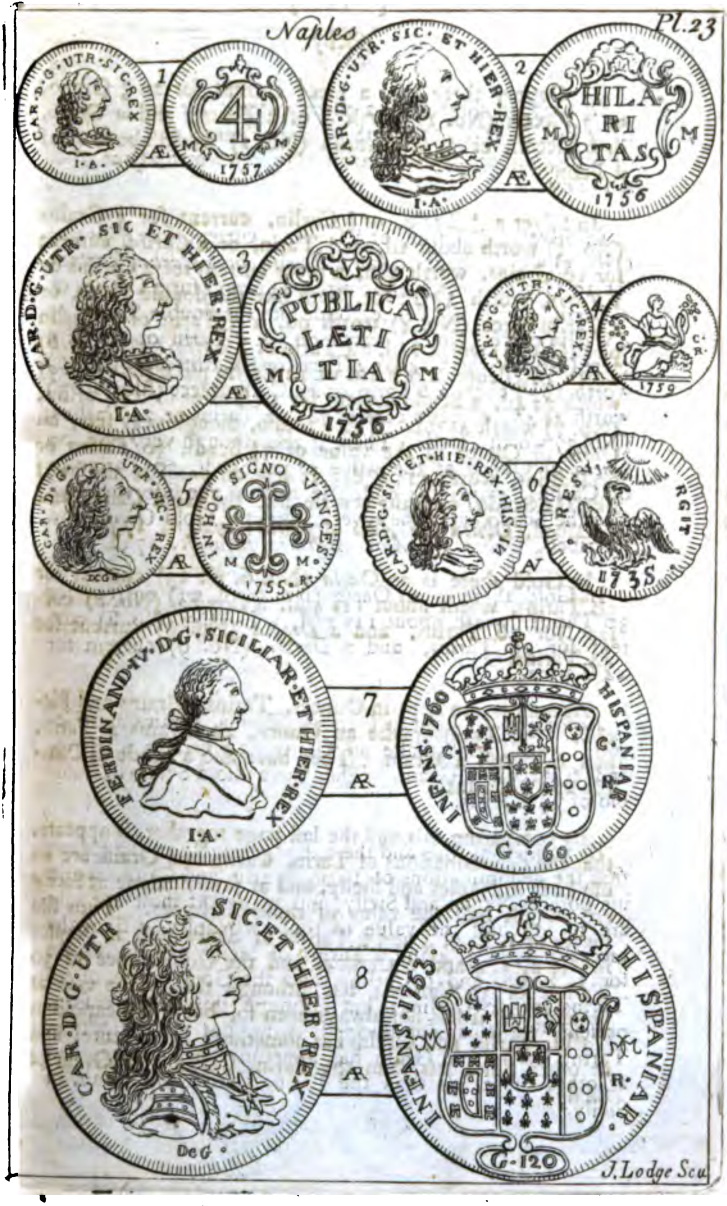
In Copper there is a piece of 3 Cavalli or $\frac{1}{4}$ of a Grano, worth about $\frac{1}{9}$ of a Penny, one of 4 Cavalli (No. 1.) worth about $\frac{1}{7}$ of a Penny, a Torneſe of 6 Cavalli or $\frac{1}{2}$ of a Grano, worth $\frac{2}{9}$ of a Penny, one of 9 Cavalli, worth $\frac{1}{3}$ of a Penny, a *Grano* of 12 Cavalli (No. 2) worth nearly an $\frac{1}{2}$ Penny, and a *Publico* (No. 3) of $1\frac{1}{2}$ Grano, worth $\frac{3}{5}$ of a Penny.

In Silver an $\frac{1}{2}$ Carlin or 5 Grains (No. 4) worth about $2\frac{1}{3}$d, a Carlin (No. 5) current for 10 Grains, worth $4\frac{3}{5}$d, a piece current for 6 Carlins (No. 7) worth about 2s $3\frac{1}{2}$d, and a piece of 12 Carlins (No. 8) worth about 4s 7d Sterl. All the above pieces are of the coinage of the late and preſent king, beſides which there are others coined under Charled II, between the years 1685 and 1700, viz. a *Carlin*, current for 10 Grains, as that above, and worth like that about $4\frac{3}{5}$ Pence, a *Tarin*, called alſo a *Terree*, current for 2 Carlins or 20 Grains, worth $9\frac{1}{5}$ Pence, an $\frac{1}{2}$ Ducato, current for 5 Carlins, $2\frac{1}{2}$ Tarins, or 50 Grains, worth 1s 11d, and a *Ducato* or *Ducat*, current for 10 Carlins, 5 Tarins or 100 Grains, worth about 3s 10d. All theſe have a Fleece on the reverſe, and are dated from 1691 to 1699. There is alſo a piece current for 12 Grains, worth about $5\frac{1}{2}$ Pence, another for 24 Grains, worth 11 Pence, another for 6 Carlins, worth about 2s $3\frac{1}{2}$d, and another for 12 Carlins, worth 4s 7d. All theſe have the arms crowned on the reverſe, and dated between 1688 and 1689. Alſo a piece at 13 Grains, and one at 26 Grains; another at $6\frac{1}{2}$ Carlins, and the Ducatone at 13 Carlins, worth 3d, 6d, 2s 6d and 5s Sterling, and dated between 1683 and 1686.

In Gold there is the *Zecchine* or $\frac{1}{3}$ Oncia, current for 20 Carlins, worth 7s $7\frac{1}{2}$d, the *Mancanza* or *Doppia*, or $\frac{2}{3}$ Oncia, current for 40 Carlins, worth 15s 3d, and the *Oncia*, current for 60 Carlins, worth 1l 2s 11d, and the $\frac{1}{2}$ Oncia coined in Sicily (No. 6) worth 11s $5\frac{1}{2}$d Ster.

Accompts are kept in Ducats called Ducati del Regno, (i. e. National Ducats) Carlins and Grains; each Ducat 10 Carlins, and each Carlin 10 Grains, or 100 to the Ducat.

Naples *Pl. 23*



J. Lodge Scu.

Sicily.

In Copper there are, a piece current for an ½ Grano, or 3 Piccoli (No. 1) worth ⅕ of a Penny, and a *Grano*, or 6 Piccoli, or $\frac{1}{10}$ of a Carlin (No. 2) worth about ⅖ of a Penny.

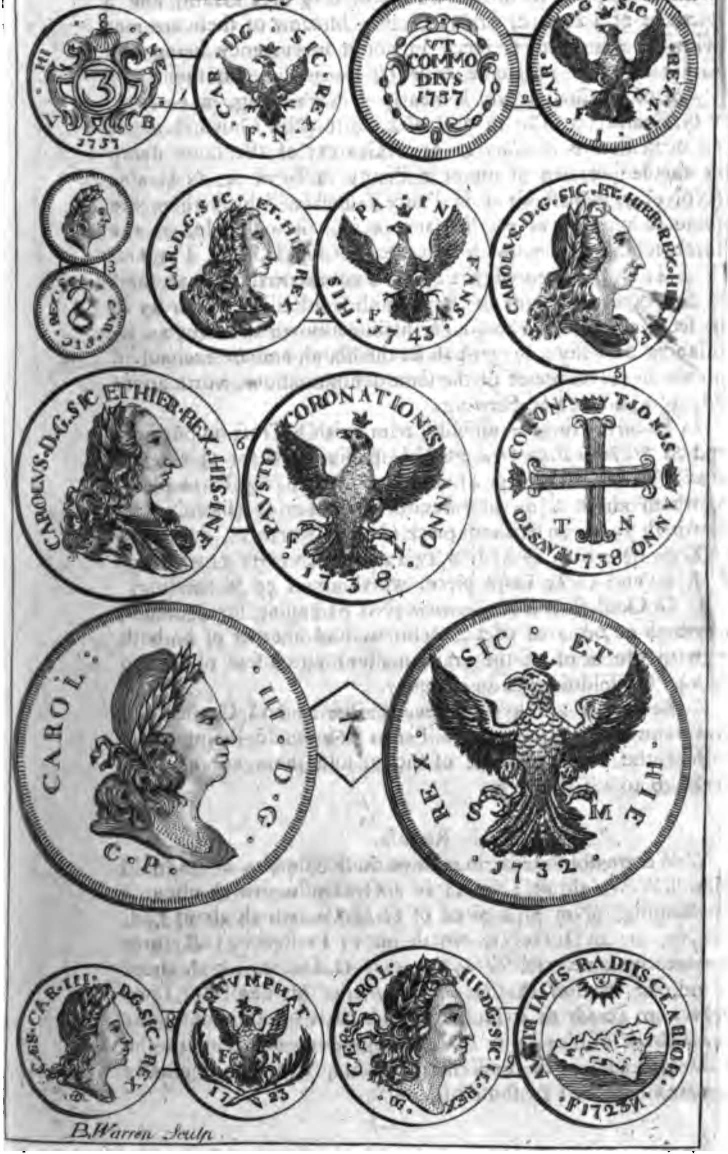
In Silver a ¼ Tarin, or ½ Carlin, current for 5 Grains (No. 3) worth about 1d, an ½ Tarin, or a *Carlin*, current for 10 Grains, worth 2¼d, a piece current for 2 Carlins or 1 *Tarin*, worth 4½ Pence, both like the double *Tarin*, or 4 Carlin piece (No. 4) worth 9d, a 3 Tarin or 6 Carlin piece (No. 5) worth 14d, a 4 Tarin or 8 Carlin piece (No. 6) worth 18½ Pence, a 6 Tarin or 12 Carlin piece (like No. 5) worth 2s 4d, a Scudo current for 12 Tarins or 24 Carlins, (No. 7) worth 4s 7d. There is alſo, though very few, an *Oncia* or Ounce of the value of 2½ Scudi, 30 Tarins or 60 Carlins, worth 11s 5½d. It has on one ſide the head like the Scudo, and the reverſe like the Gold *Oncia*, and inſcribed, *Oblita Ex Auro Argentea Reſurgit*, 1732.

In Gold there is an *Oncia* (No. 6, pl. 23) current for 30 Tarins, worth about 11s 5½d, a *Zecchine* (No. 8) current for 26 Tarins, and a *Doppia* (No. 9) current for 44 Tarins.

Accompts are kept in Ounces, Tarins, Grains and Piccoli. 30 Tarins make an Ounce, 20 Grains a Tarin, and 6 Piccoli a Grain. They have alſo a Scudo di Cambio of 13 Tarins.

By comparing this and the laſt page together, it appears, that the denominations of Tarin, Carlin and Grain are in uſe both in Naples and Sicily, and at preſent thoſe at Sicily are of juſt half the value of thoſe of Naples. Thus the pieces of 1, 2, 3, 4 and 6 Tarins of Sicily paſs in Naples for 1, 2, 3, 4 and 6 Carlins, and the Gold ounce of 30 Tarins for 30 Carlins; but although this is the caſe at preſent, yet it has not always been ſo, but the Neapolitan Tarin, Carlin and Grain has ſometimes been more, and at other times leſs than the Tarin, Carlin and Grain of Sicily.

Sicily



B. Warren Sculp.

Malta.

In Copper there are a *Piccola*, or $\frac{1}{6}$ of a Grain, and a piece of 3 Piccoli, or $\frac{1}{2}$ a Grain; but few of theſe are met with, the ſmalleſt piece in common currency being the Grain (No. 1; ſome have *Ut Commodius* on them) or $\frac{1}{10}$ of a Carlin, worth nearly $\frac{1}{2}$ a Farthing, a piece of v Grains, $\frac{1}{2}$ a Carlin or $\frac{1}{4}$ of a Tarin (No. 2) worth about an $\frac{1}{2}$ Penny, a *Carlin*, or x Grains (of the ſame ſtamp as the laſt) worth about a Penny, a *Tarin* or xx Grains (No. 3) worth about 2 Pence. Beſides which there are ſome old pieces of the ſame type, on one ſide, as the three laſt pieces, with *Non Aes Sed Fides*, T 1, T 2 and T 4, but diſfigured with 3 or 4 countermarks, that their firſt type, like thoſe of the Spaniſh Calderillas, is hardly to be ſeen. Theſe, although intrinſically worth about a Farthing or $\frac{1}{2}$ Penny; yet paſs in the iſland, and are exchanged for the Silver pieces of the ſame denominations, worth about 2d, $4\frac{1}{4}$d and $8\frac{1}{2}$d Sterling.

In Silver there is an old Carlin, with a Croſs on one ſide, and *St Joan Bapt Ora pro Nob*, paſſing now for 15 Grains, a 2 Tarin piece (No. 4) worth about $4\frac{1}{4}$d, a 4 Tarin piece, worth about $8\frac{5}{8}$d, an $\frac{1}{2}$ Scudo, or 6 Tarins (like No. 7) worth $13\frac{1}{4}$d, an 8 Tarin piece (No. 5) worth $17\frac{1}{4}$d, a *Scudo* (No. 6) worth 2s $2\frac{5}{8}$d, a xv Tarin piece (No. 7) worth 2s $8\frac{1}{2}$d, and a xxx Tarin piece, worth about 5s 5d Sterling.

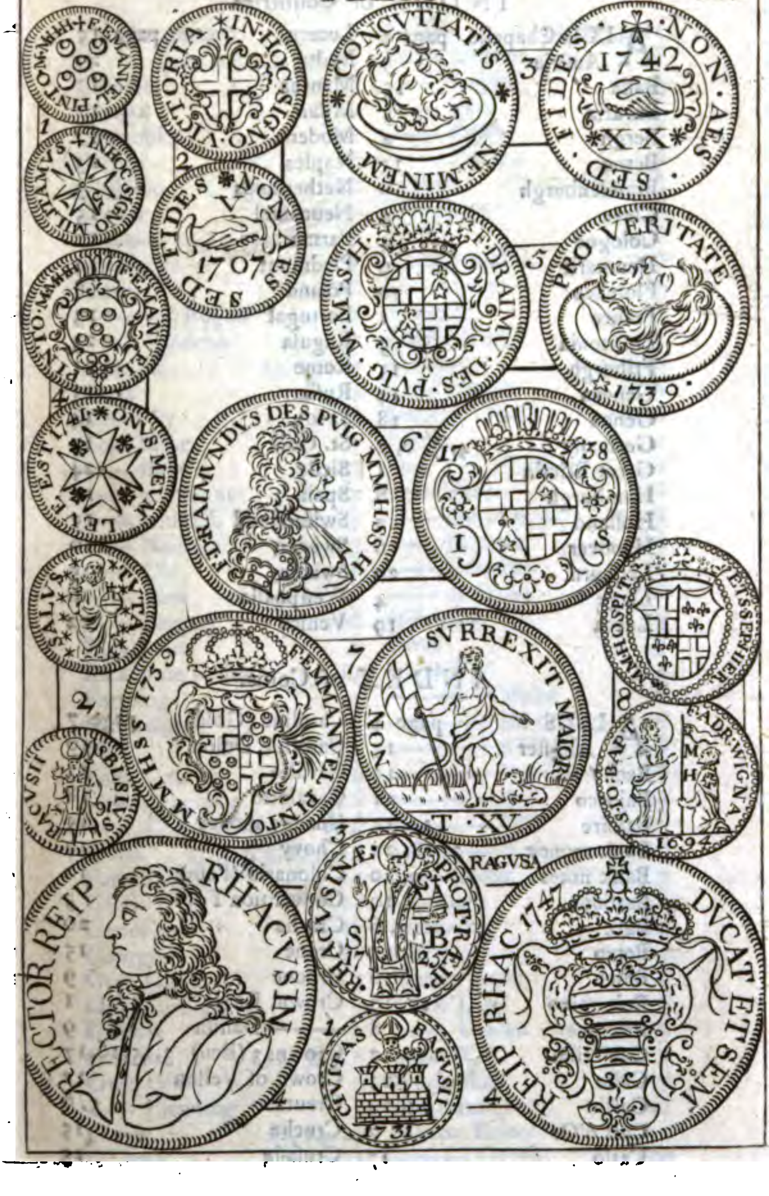
In Gold there is a *Zecchine* (No. 8) paſſing for $4\frac{1}{4}$ Scudi, worth 9s 6d, one of 2 Zecchines, and another of 4, both with the head of the grand maſter; alſo a few of 12 and 24, but ſeldom ſeen in currency.

Accompts are kept in Scudi, Tarins and Grains, 20 Grains to a Tarin, and 12 Tarins to a Scudo, being about half the value of thoſe of Sicily, and there are about 9 Scudi to a £ Sterling.

Raguſa.

We are not ſo clear in relation to theſe coins, as we could wiſh. We think (No. 1) is an $\frac{1}{2}$ Groſſo, worth about a Farthing, (No. 2) a piece of $2\frac{1}{2}$ Groſs, worth about $1\frac{3}{8}$d, (No. 3) an $\frac{1}{2}$ Ducat, worth about 11 Pence; all three have the ſame reverſe. (No. 4) is $1\frac{1}{2}$ Ducat, worth about 2s 9d, or that of the *Ducato Piccoli* of Venice. They reckon 40 Groſs to a Ducat, which is worth about $\frac{1}{2}$ the *Ducatello* of Venice or 4 Lire, agreeing nearly with the Ducat and Lire of the Venetian Dalmatia, which is uſually eſteemed $\frac{1}{2}$ or $\frac{3}{5}$ of thoſe of Venice.

MALTA


F·EMANVEL·PINTO·M·M·H·H
1
IN·HOC·SIGNO·VICTORIA
2
CONCVTIATIS NEMINEM
3
NON·AES SED FIDES
1742
XX
IN·HOC SIGNO MILITAMVS
NON AES SED FIDES
V
1707
F·EMANVEL·PINTO·M·M·H·H
4
F·D·RAIMV·DES·PVIG·M·M·S·H·
5
PRO VERITATE
1739
ONVS MEVM LEVE EST 1741
F·D·RAIMVNDVS DES PVIG M·M·H·S·S·H
6
17 38
I S
SALVS TVTA
2
S·BLASIVS RACVSII
91
F·EMMANVEL PINTO M·M·H·S·S·H 1739
7
SVRREXIT NON MAIOR
T·XV
M·M·HOSPIT·ET S·SEP·HIER
8
S·IO·BAPT
F·ADR·WIGNA
M H
1694
RAGVSA
RECTOR REIP RHACVSIN
RHACVSINÆ·PROT·REIP·
S B
17 25
1
CIVITAS RAGVSII
1731
DVCAT ET SEM REIP RHAC 1747
4
4

INDEX of Countries.

AIX la Chapelle page 4
Auſtria 5
Baſle 15
Bavaria 5
Bergh 4
Berne 15
Brandenburgh 6
Cleve 4
Cologne 4
Denmark 9
Florence 20
France 1
Franconia 5
Friburgh 15
Geneva 14
Genoa 18
Germany 4, 5, 6, 7
Great Britain 1
Hamburgh 8
Holland 2
Hanover 6
Leghorn 20
Liege 4
Lucca 19
Lucern page 15
Malta 25
Mantua 17
Milan 17
Modena 17
Naples 23
Netherlands 3
Neuchatel 15
Parma 17
Piedmont 14
Poland 8
Portugal 13
Raguſa 25
Rome 21
Ruſſia 11
Savoy 14
St. Gall 15
Sicily 24
Spain 12
Switzerland 15
Sweden 10
Swabia 5
Weſtphalia 6
Venice 22

INDEX of Coins.

ALBUS page 4
Angſter 15
Bache 15
Bajocco 21
Bajoire 14, 15
Bank money 2, 18, 22
Bank notes 9, 10
Barbone 19
Batz 5, 6
Betzo 22
Bidet 16
Bologuino 17, 19
Brommer 8
Calderilla 12
Calle 23
Carlin 23, 24
Carl d'Or 7
Carlo 17
Caroline (Gold) page 7
Caroline Dollar 10
Cavallo 23
Cavalotto 18
Change money 15
Chovy 17
Colonario (Paſo) 12
Convention Foot 5
Crache 20
Crone 15
Croone 9
Crown, Engl. 1
—— Daniſh 9
Crowns 3 (Ecu) 3, 15, 16, 17
Crown of Vellon 12
Creutzer 5, 6
Cruche 15
Cruſade 13

Current money page 14, 15, 17, 22
Daalder 2
Denga 11
Denuſhka 11
Doble 12
Doblon 12
Dollar 2, 4, 5, 6
Doppia 14, 15, 17, 18, 19, 20
Doubeltje 2
Ducat 2, &c.
—— del Regno 23
—— Modena 17
Ducaton 14, 15, 17
Duyt 2
Dreyling 8
Ecu Blanc 1
—— Bidet 16, 17
—— 3 Crowns 3, 16, 17
—— with LL 3, 16, 17
—— Navarre 3, 16, 17
—— Old 3, 16, 17
—— New 3, 16, 17
—— Poupon 16
Eighteener 8
Eſcudo de Vellon 12
Farthing 1
Fettmangen 4
Firer 15
Foot Leipſick 5, 6
—— Zinniſche 5, 6
—— Convention 5, 6
Florin 2, 3, 4, 5, 6, 7, 14
Fuerto (Peſo) 12
Giulio 21
Genovine 18
Georgine 18
Gold Gulden 2
Gold Caroline 7
Guilder 2
Guinea 1, 2, 3, 7, 8
Gute Groſs 6
—— Pfenning 6
Grain 23, 24, 25
Griwna 11
Grueſſo (Peſo) 12
Groſſo page 19, 21
Groſs Marien 6
—— Keyſer 5
—— gute 6
—— Poliſh 8
—— Pruſſian 8
Gulden 4, 5, 6, 7, 8
Halfpenny 1
Heller 4, 6
Kopper Dollar 10
—— Ore 10
Kopeick 11
Keyſer Groſs 5
Kreutzer 4, 5, 6
Land Muntz 6
Leipſick (Foot) 5, 6
Liard 1
Lire 17, 18, 19, 20, 21, 22
—— Bank 18
—— out of Bank 18
—— Picciola 18
—— Cartulario 18
—— di Paghi 18
Liſbonine 13
Livre 1, 14
Louis d'or 1
—— Malta 16
—— Mirliton 16
—— with L L 16
—— Noailles 16
—— Sun 16
—— Old 16
—— New 16
Lyon Dollar 2
Madonina 18
Maravedie 12
Marchetto 22
Marien Groſs 6
Mark Lubs 8
—— Danſke 9
Max d'Or 7
Maximilian 7
Mexicane (Peſo) 12
Mezzo Bajocco 12
—— Groſſo 19
—— Soldo 19

Mezzo Scudo page 19
Milree 13
Mirliton 16
Moidore 13
Money Bank 2, 18, 22
——— Current 14, 15, 17, 22
——— Change 15
——— Permiſche 3
——— Imperial 17
Muntz Land 6
——— Scheide 6
Noailles (Louis) 16
Navarre (Ecu) 16
Ochavo 12
Ongaro 17
Ore Silver 10
——— Copper 10
Ortje 3, 4
Ort Dollar 9
Ounce 24, 25
Paolo 21
Papetto 21
Parpaiole 17, 18
Patagon 4, 15
Paul 21
Pezzo d'otto 12
Peſeta 12
——— Mexicane 12
Peſo Duro 12
——— Colonario 12
——— Fuerte 12
——— Grueſſo 12
——— Mexicane 12
Permiſche 3
Petermangen 4
Pfenning 4, 5, 6
Phillip 17
Piaſtre 20
Piccaleon 14
Picciola 18, 22
Piece of eight 12
Piſtarine 12
Piſtole 12, 16, 17
Placket 3
Plappert 4
Polpoltin 11
Poltin 11
Poluſhka 11
Pound Sterl. 1
——— Flem. 2, 3, 8
Poupon 16
Provincial Money 12
Pultorack 11
Publico 23
Quartino (Gold) 21
Quarto page 12
Quarentine 17, 19, 20, 21
Quatrino 17, 23
Quinto di Scudo 19
Rap 15
Ree 13
Rix Dollar 4, 5, 6, 7
Ruble 11
Ryal of Plate 12
——— Vellon 12
Rundſtucke 10
Ryder 2
Schlante 10
Schlecht Doll. 9
Schoſtack 8
Schwaren 6
Scudo 14, 17, 18, 19, 20, 21, 22
——— d'Argento 18
——— di Cambio 18
——— di Marcha 18
——— d'Oro 18, 19
Sechling 8
Seſſino 9
Seventeener 5
Shilling Sterling 1
——— Lubs 8
——— Danſke 9
——— Sundſhe 8
——— Pruſſia 8
——— Poland 8
——— Lucern 15
——— Zurich 15
Sol 14
Soldo 17, 18, 19, 20
Soldone 17
Soſling 9
Sous 1
Sovereign 3, 15, 18
Specie Dollar 5, 6
Square Dollar 10
Stuyver 2, 3, 10
Tarin 23, 24, 25
Taro 23
Terree 23
Terzo di Lire 18
——— Scudo 19
Teſton 20, 21
Torneſe 23, 24
Traro 22
Trojack 8
Tymfe 8
Vellon 12
Vintin 13
Witte 8
Zecchine 14
Zinniſche Foot 5

THE DOCTRINE OF GOLD and SILVER Computations;

In which is included,

That of the PAR of Money:

The Proportion in Value between GOLD and SILVER;

And the

Valuation of GOLD, SILVER, and PARTING ASSAYS:

With uſeful

TABLES and COPPER-PLATES.

By THOMAS SNELLING.

LONDON:
Printed for T. SNELLING, next the
Horn Tavern, *Fleet-ſtreet.*
M.DCC.LXVI.
Who buys and ſells all Sorts of Coins and Medals.

THE

PREFACE.

THE two principal objects attended to in the following work, is firſt the mixing of a fine metal with a baſe one, in different proportions; and ſecondly, the value of the maſs according to the quantity of fine metal contained in it.

In regard to the firſt, it appears from the method of notation uſed in this kingdom, to diſtinguiſh the different qualities of ſilver, that there may be 480 ſorts of it, or from that which has but an halfpennyweight, in a lb. weight, and ſtill increaſing by an halfpenny weight until the whole lb. is fine ſilver; and by the notation uſed for gold there may be 384 ſorts, each differing by one quarter carat grain, or from that which has but one quarter of a carat grain, to that which is quite fine; and when theſe two metals are mixed with copper, and the quantity of each is to be taken notice of, as in parting, there may be 460800 different manners in which they may be mixed, and reports made of them accordingly, which ſhews how copious this part of the ſubject is.

That particular mixture which has 37 parts fine metal, and 3 parts baſe, is what our legiſlature has fixed upon, out of which both money and plate is to be made in ſilver; and that mixture which has 33 parts fine, and 3 parts baſe, to be that from which gold coin and work is to be made; theſe mixtures are called ſtandard ſilver and ſtandard gold, and certainly are ſo termed with great propriety, as they have been ſo ſteadily adhered to for 500 or 600 years, eſpecially the former, and the latter about half that time, the former is likewiſe generally known by the name of ſterling, which it has received from our penniy or ſterling being always made of it.

And this is the reaſon that enquiries are not made, what quantity of fine gold or fine ſilver is contained in any mixture, which ſeems to be the moſt natural enquiry, but how much ſtandard they hold.

And on this account it is that tables have been calculated of the quantities of ſtandard contained in any determinate

weight

weight of any other mixture; theſe ſort of tables were firſt publiſhed An. 1651, by Mr. Reynolds, aſſay maſter at the Mint in the Tower, and afterwards with corrections and additions again in 1677, at the end of a book, entitled, *The Touchſtone of Gold and Silver Wares*; the tables we have added in our work are in ſubſtance the ſame as thoſe, but we have given the weights in ounces only, inſtead of pounds and ounces, and we have divided the grain only into 8th parts, inſtead of mites and parts of a mite as he has done.

Our other tables for ſtandarding gold or ſilver that is worſe, with gold or ſilver that is better, ſhewing by inſpection how much of the latter is to be added to one ounce of the former to ſtandard it, is entirely new, and we do not doubt but it will be found very uſeful.

The ſecond of the two principal objects in this work is the value of the mixture, and this is always ruled by that of one ounce of ſtandard both in ſilver and gold, which method is different from that of moſt foreign nations, where the value of the mark of 8 ounces of fine gold or fine ſilver is that, from which all mixtures are calculated, and receive their price according to the aſſay, the manner of computing which we have given at large, as alſo a very compendious one for common uſe, by means of little tables for gold, ſilver and *parting* aſſays, which laſt we do not remember has been hitherto treated on by any writer.

As to the particular application of the doctrine of value to aſcertain the par of money, we think it is conſidered in a different light from moſt of our writers, as they only tell us what it is, without giving the requiſite data of weight and fineneſs, and therefore we cannot either find it ourſelves, or know whether what they have given us is true or falſe, and the ſame circumſtance attends the diſcovery of the proportion between gold and ſilver; finally, as the preſent work is the firſt, as far as we can learn, that has been wrote *profeſſedly* upon the ſubject, we flatter ourſelves it will be found the more agreable, however we ſubmit the whole as it is, to the judgment and candour of thoſe whoſe inclination or employment may lead them to conſider this very curious and uſeful ſpecies of computation.

TABLE
OF
CONTENTS.

Præcognita — page 1.
Doctrine of quantity — 6

Caſes	given	required
1	GROSS wt. and fineneſs	Wt. of alloy.
2	Fine wt. and fineneſs	Groſs weight
3	Wt. of alloy and fineneſs	Groſs weight
4	Groſs wt. and fine wt.	Fineneſs or report
5	Groſs wt. and alloy wt.	Fineneſs or report
6	Groſs wt. and fineneſs	Standard weight
7	Groſs wt. and ſtandard wt.	Fineneſs or report
8	Fineneſs and ſtandard wt.	Groſs weight
9	Wt. and fineneſs of one ingot, and wt. of another	Standard wt. of the other
10	Wt. of two ingots, and fineneſs of one —	Fineneſs of the other
11	Report of two ingots which ſtandard each other, and wt. of one —	Weight of the other
12	Wt. of two ingots, and fineneſs of one —	Wt. of ſtandard in the maſs
13	Wts. and fineneſſes of two ingots —	Fineneſs of the maſs
14	Wt. and report of an ingot of parting —	Quantity of fine gold and fine ſilv.
15	Groſs wt. gold report, and quantity of fine ſilver -	Silver report and quantityfine gold
16	Groſs wt. wt. of fine gold, and ſilver report —	Gold report, and quantity fine ſilv.

17 Groſs

17	Groſs wt. wt. of fine gold, and wt. of fine ſilver ——	Gold and ſilver reports
18	Report and quantity of fine ſilver, and quantity of fine gold ——	Gold report, and groſs weight
19	Gold report, quantity of fine gold and fine ſilver	Silver report and groſs weight
20	Gold wt. and report of two or more ingots —	Fine gold and fine ſilver in the maſs

Doctrine of value —— page 41

21	Value of one ounce of ſtandard ——	Value 1 oz. of any other fineneſs
23	Fineneſs of two ſorts, and value of one —	Value of the other
24	Value of two ſorts, and fineneſs of one ——	Fineneſs of the other
25	Weight, fineneſs and price of ſtandard ——	The value per oz.
26	Report of a parting aſſay, and price of ſtandard —	The value per oz.

Doctrine of pars —— page 68
Doctrine of proportion between gold and ſilver ———— 74
Silver tables of the quantity of ſtandard 81
Uſe of the ſame —— 96
Gold tables of ditto —— 99
Uſe of the ſame —— 111
Tables to ſtandard ſilver Wo. with ſilver B. 113
Uſe of the ſame —— 126
Tables to ſtandard gold Wo. with gold Br. 127
Uſe of the gold tables —— 139
Rule to find how much muſt be fined off from an ingot Wo to make it ſtandard — 140
Table to ſtandard ſilver Br. with copper 142
Table to ſtandard gold Br. with copper 143

PRÆCOGNITA.

I. BY the word SILVER we underſtand, not only the metal ſo called, pure and unmixed, but alſo when in a maſs with copper; and if but one half, two thirds, or any other proportional part of it be ſilver, yet the whole bears that name.

II. The ſame is to be underſtood of GOLD, when by itſelf, or in a maſs with ſilver and copper together, or with either of them alone.

III. None but the pure ſilver and pure gold are of any value, and therefore in the maſſes, wherein but $\frac{1}{2}$ or $\frac{2}{3}$ are fine metal, one ounce or one pound of them, are of no more value than one half, or two thirds of an ounce, or a pound of fine ſilver or fine gold.

IV. The copper that is mixt with the ſilver, as alſo the copper and ſilver that is mixt with the gold, is called the allay or alloy.

V. In order to find the number of parts that are fine, and the number of them that are alloy, a ſmall quantity of any maſs is generally taken, which is called an aſſay piece, or tryal piece; for from this the aſſayor or aſſay maſter (as the Perſon is called who tries it) determines that of the whole maſs, and the reſult of this operation is called the aſſaymaſter's REPORT.

VI. Every piece of ſilver, whether bullion or money, let its weight be what it will, is ſuppoſed to conſiſt of 12 parts (*a*) called ounces, and each of them, of twenty parts called pennyweights, or of 240 pennyweights; and the half of this pennyweight, or the 480th part, is the ſmalleſt made uſe of in ſilver.

VII. In gold every entire piece as above ſaid, is ſuppoſed to conſiſt of 24 parts called carats (*b*) each of which is divided into 4 grains, and each grain into 4 quarters; that is, 96 carat grains, and 384 quarter carat grains, which is the ſmalleſt part noted in gold.

VIII. Theſe ounces, pennyweights, and grains, are thus marked in the report j, ij, iij, iiij, v, vj, vij, viij, ix, x, xj, xij, xiij, xiiij, xv, xvj, xvij, xviij, xix, xx, xxj, xxij, xxiij, and the half penny weight is marked ob for obolus.

(*a*) The number of parts into which the ſupreme degree of fineneſs for ſilver is divided in England, as alſo the names given to them, are borrowed from, and agree with, the weights made uſe of in weighing theſe metals; it is the ſame likewiſe in France, Spain, and many other places, with regard to their denier being divided into 24 grains, but not in the mark being 12 deniers; however, in Germany their expreſſions for fineneſs, and denominations of weight are 16 lodig each 18 grains, or 288 grains make one mark fine, and the ſame number of lodigs and grains are in their mark weight, ſo likewiſe in China their diviſion of fineneſs into 100 touches, bear a relation to that of the tale into 100 candareens.

(*b*) The carat in moſt places is a nominal weight only, not borrowed from any real weight, but conſidered as the 24th part of a pound, an ounce, &c. They divide it into $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, and $\frac{1}{32}$ in France, and Spain, which laſt agrees with our $\frac{1}{2}$ quarter carat grain; in Germany they divide it into 12 grains, and therefore their fine gold and fine ſilver conſiſts of the ſame number of grains, viz. 288. But in Venice it is alſo a real weight, as well as an expreſſion of fineneſs both for gold and ſilver, the mark weight conſiſting of 1152 carats, and their ſupreme degree of fineneſs the ſame.

IX. In England eleven ounces two pennyweights of fine ſilver, and eighteen pennyweights of copper, make one pound weight of ſilver of the fineneſs eſtabliſhed by law, and is called STANDARD ſilver; that is, ſilver of 11 $\frac{1}{10}$ oz. or 11 oz. 2 dwt. or 222 dwt. fine.

X. And the fineneſs of the gold eſtabliſhed by law, or that called STANDARD gold, conſiſts of 22 carats of fine gold, and 2 carats of alloy, which is equivalent in its fineneſs to 11 ounces of fine, and 2 ounces of allay in ſilver.

XI. The aſſay maſter does not report the abſolute fineneſs, or quantity of fine ſilver or fine gold, but only the relative quantity or fineneſs; that is, how much it is more or leſs than ſtandard, as if it was ſilver of 10 oz. fine, he puts down Wo. $\overset{oz}{j}$ $\overset{dwt}{ij}$, or if 11 oz. 8dwt. he puts down Br. $\overset{dwt}{vi}$. and in gold of 20 carats fine he puts down Wo. $\overset{car.}{ij}$, and if it is 23 car. 3 gr. $\frac{1}{2}$ fine, he puts Br. $\overset{ca}{j}$, $\overset{gr}{iij}$, ob.

XII. The quantity of betterneſs or worſeneſs in any ingot, being added to, or ſubſtracted from the weight of it, gives the quantity of ſtandard contained in it.

XIII. That maſs wherein there is a mixture of gold, and the quantity of that as well as the ſilver, is to be reported; ſuch an aſſay is called a PARTING ASSAY, in which the ſilver is to be reported as uſual, how much better or worſe it is than ſtandard; but the gold contained in it is reported by its quantity in ounces, as if an ingot has 9 oz. of fine ſilver and 1⅕oz. of fine gold, it is reported W. $\overset{oz}{j}$. $\overset{dwt}{ij}$. fine gold $\overset{oz}{j}$. $\overset{dwt}{iiij}$.

XIV. That part of this work which has for its object the relation, which the groſs weight, fine weight, and ſtandard weight contained in two or more ingots, have to each other, we call the doctrine of quantity.

XV. In which enquiries, there are always three terms given to find a fourth; that is, the weight and fineneſs of one ingot, and either the weight of another ingot to aſcertain its fineneſs, or the fineneſs to aſcertain its weight; which are in reciprocal proportion to each other, and the product of the weight of each ingot multiplied into its fineneſs, are equal.*

XVI. And when ſeveral ingots are melted together, differing from each other both in weight and in fineneſs; the ſum of the products of the weight and fineneſs of each ingot being added together, will be equal to the product of the weight and fineneſs of the maſs.

XVII. The ſame thing occurs likewiſe with ingots of parting, wherein the ſeveral products of the groſs weight multiplyed into the quantity of gold for the gold, and that of the ſilver and alloy into the fine ſilver for the ſilver; being added together, will be equal to the groſs weight of the maſs multiplied into its fine gold, and the ſilver and alloy into its fine ſilver.

XVIII. That part of this work which beſides weight and fineneſs, has alſo value under its conſideration, we call the doctrine of value.

XIX. In thoſe caſes where the weight of two ingots are the ſame, but of different fineneſſes, or the fineneſs the ſame but of different weights; there are alſo three terms given to find a fourth, and are in direct proportion, the value increaſing or de-

---

* In the two ingots A and B, if $a =$ the wt. and $b =$ the fineneſs of A; $c =$ the wt. and $d. =$ the fineneſs of B. Then as $c : a :: b : d \therefore ab = cd$.

decreaſing as the weight or fineneſs, and the product of the weight of each ingot into the value of the other are equal. §

XX. But in thoſe caſes where the weight and fineneſs of two ingots are both different, then the value is directly as the product of the weight and fineneſs of one of them, to the product of the weight and fineneſs of the other. ‡

XXI. And there are always five terms given to find a ſixth; that is, the value of an ingot, or piece of the weight of one ounce of ſtandard, with its price per oz. and either the weight and fineneſs of another ingot, to find its value, or the weight and value, to aſcertain its fineneſs, or the fineneſs and value to aſcertain its weight; and all the caſes relating to the par, and proportion of money, are thus circumſtanced.

§ Let $x =$ the value of A, and $z =$ that of B, then as $c : x :: a : z$ and as $b : x : d : z$, that is $ax = cz$, and $dx = bz$.

‡ As $ab : x :: cd : z \because abz = cdx$.

The

The Doctrine of Quantity.

CASE I.

Given the groſs weight, and the fineneſs, or report, to find the quantity of fine metal and alloy. Præcog. XV.

Example 1. An ingot of ſilver which weighs 256 oz. is reported Br. $\overset{\text{dwt}}{\text{vj.}}$ what is the quantity of fine ſilver and alloy in it?

dwt.
To 222 the fine parts in ſtandard
Add 6 thoſe of the report
228 fine parts in the ingot

dwt. oz. dwt. oz. dwt.
Then 240 : 256 :: 228 : 243 4
228
2048
512 oz. dwt.
512 256 – 0 groſs wt.
24|0)5836|8 (243 – 4 fine ſilver
103 12 16 alloy
76
Remains 48
20
24|0)96|0(4 dwt.

The

The alloy is found directly as follows:

	dwt.	
From	240	total number of fine parts
Take	228	thoſe of the ingot
Remains	12	

dwt. oz. dwt.
Then as 240 : 256 :: 12 :
12
240)307|2(12 oz. 16 dwt. alloy
67
192
20
24|0)384|0(16 dwt.
144

Example 2. An ingot of gold weighing 235 oz. 16 dwt. 18 gr. reported Wo. car 1. gr 2. how much fine gold is contained in it?

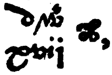
	car.		cr. gr.	
From	22	or	88	fine parts in ſtandard
Take	1½	or	6	thoſe in the report
Remains			82	fineneſs of the ingot

car. gr. oz. dwt. gr. ca. gr. oz. dwt. gr.
As 96 : 235 16 18 :: 82 : 201 – 8 – 21
20
4716
24
18882
9432
113202
82
226404
905616
24) 2|0)
96)9282564 (96693(402|8
642 693 201 8 21 fine gold
665 213
896 21 grains
324
36

CASE II.

CASE II.

Given the fine weight, and the report, required the groſs weight. Præcog. XV

Example 3. An ingot contains 387 oz. 17 dwt. of fine ſilver, and is reported Wo. , what is the groſs weight of it?

	dwt.		½dwt.	
From	222	or	444	fine parts in ſtandard
Take	17½	or	35	thoſe of the report
			409	thoſe in the ingot

½dwt. oz. dwt. ½dwt.

As 409 : 387 – 17 :: 480

20

7757

480

620560

31028

409)3723360(9103 (20)

423

1460

remains 233

455–3 groſs wt.

Example

Example 4. An ingot of gold reported Br. $\overset{cr}{1} \cdot \overset{gr}{1}$ which has 127 oz. 15 dwt. 3 gr. of fine gold, what is the groſs weight of it?

```
       car. gr.
To       88    fine parts in ſtandard
Add       5    thoſe in the report
         93    thoſe in the ingot

   car. gr.  oz.    dwt.   gr.    cr. gr.  oz. dwt.  gr.
As 93 : 127 - 15 - 3 :: 96 : 131 - 17 - 18
              20
            2555
              24
           10223
           5110
           61323
              96
          367938
         551907   24) gr.    2|0 dwt.
   93)5887008(   63301(   263|7
        307         153      131-17-13 groſs wt.
         280         90
          108       181
           15        13 gr.
```

CASE III.

Given the fineneſs, or the report, and the weight of alloy to find the groſs weight. *Præcog.* XV

Example 5. An ingot of ſilver is reported Wo. $\overset{\text{oz}}{\text{j.}}$ $\overset{\text{dwt}}{\text{vj.}}$ and contains 27 oz. 17 dwt. of alloy, what is the weight of the ingot.

```
     dwt.
To   18 the alloy in ſtandand
Add  26 that of the report
     ——
     44

     dwt.  oz. dwt.     dwt.   oz.  dwt.
As   44 :  27  17  ::  240  :  151  18
           20
           ——
           557
           240
           ————
          2228
         1114
         ——————   20)
     44)133680 (3038
          168     151 18 groſs wt.
           360
           ———
remains      8
```

Example 6. An ingot of gold reported Br. $\overset{\text{car}}{\text{j.}}$ $\overset{\text{gr}}{\text{iij.}}$ and which has 21 oz. 2 dwt. 18 gr. of alloy, what is the groſs weight.

From

```
      car. gr.
From    8    alloy in ſtandard
Take    3    that of the report
       ---
        5

           car. gr. oz. dwt. gr.  car. gr.   oz.  dwt. gr.
Then as  5  :  21   2   18   ::   96    :  381   16   19
                         8
            ----------------
            169   2    0
                      12
            ----------------
          5)2029  4    0
            405  16   19 the groſs wt.
```

We have here multiplied the weight as it ſtands, without reducing it into grains.

CASE IV.

Given the groſs weight, and the fine weight, required the report or fineneſs. *Præcog.* XV.

Example 7. An ingot of ſilver weighing 722 oz. 10 dwt. and containing 620 oz. 3 dwt. of fine ſilver, what is the fineneſs of it?

```
    oz. dwt.    dwt.     oz. dwt.   dwt.
As  722  10  :  240  ::  620  3  :  206
     20                   20
  -------               -------
  14450                  12403
                           240
                       ---------
                        496120
                       24806
                       -----------
           1445|0) 297672|0( 206 fine or Wo. xvj dwt.
                    8672
                    ----
           remains    20  parts of a dwt.
```

Example 8. The groſs weight of an ingot of gold is 82 oz. 15 dwt. 6 gr. of which 77 oz. 11 dwt. 20 gr. is fine gold, what is the fineneſs of it?

```
       oz. dwt. gr. car. gr.  oz. dwt. gr. car. gr.
    As 82  15   6 : 96 :: 77  11  20 : 90
        20                    20
       -----                 -----
       1655                  1551
         24                    24
       -----                 -----
       6626                  6224
      3310                  3102
      -----                 -----
      39726                 37244
                               96
                            ------
                           223464
                          335196
                          ---------ca.gr.      car  gr
                  39726)3575424 (90 or Br. ij.
                          ---   88 fine pt. in ſtan.
               remains    84    ---
                                 2 report
```

CASE V.

Given the groſs weight, and the weight of the alloy, required the report or fineneſs. *Præcog.* XV.

Example 9. An ingot of ſilver which weighs 288 oz. 11 dwt. of which 39 oz. 14 dwt. is alloy, what is the fineneſs of the ingot?

As

oz. dwt. oz. dwt. dwt.

As 288 11 : 240 :: 39 14 : 33

20 20

5771 794

240

31760

1588

Dw

5771)190560(33 or Wo. Cw.

17430 18 alloy in ſtand.

remains 117 15 report

Example 10. An ingot of gold which weighs 48 oz. 17 dwt. 20 gr. has 1 oz. 15 dwt. 16 gr. of alloy, what is the fineneſs?

oz. dwt. gr. oz. dwt. gr.

As 48 17 20 : 96 :: 1 15 16

20 20

977 35

24 24

3928 156

1954 70

23468 856

96

5136

7704

cr. gr. car gr

23468)82176(3 2 or Br. j. ij.

11772 2 0 alloy in ſtand.

4

1 2 report

22962)47088(2

1164

Case

CASE VI.

Given the groſs weight and the fineneſs or report, required the weight of ſtandard. *Præcog.* XV.

Example 11. A ſilver ingot weighs 215 oz. 12 dwt. and is Br. [illegible] how much ſtandard does it contain?

dwt. oz. dwt. dwt. oz. dwt.
As 222 : 215 12 :: $232\frac{1}{2}$: 225 16 ferè
20

dwt.
To 222 4312
Add $10\frac{1}{2}$ $232\frac{1}{2}$

$232\frac{1}{2}$ 8624
12936
8624
2156

20)
222)1002540(451|5
1145 225 $15\frac{35}{37}$ ſtand.
354
1320

remains 210

Example 12. An ingot of gold weighing 145 oz. 4 dwt. 12 gr. is reported Wo. $\overset{car}{\text{j.}}$ $\overset{gr}{\text{iij.}}$ how much ſtandard is there in it?

As

ca. gr. oz. dwt. gr. cr. gr.
As 88 : 145 4 12 :: 81
20

car. ca. gr.
From 22 or 88 2904
Take $1\frac{3}{4}$ or 7 24

$20\frac{1}{4}$ or 81 11628
5808

69708
81

69708
557664

24) 20)
88)5646348(64163(267|3
366 161 133 13 11 ſtand.
143 176
554 83
268

4 11 grains

The work of this queſtion will be much ſhorter by multiplying the denominations as they ſtand, without reducing them into grains.

	oz.	dwt.	gr.
	145	4	12
			9
	1307	0	12
			9
8)	11763	4	12
11)	1470	8	$1\frac{1}{2}$
	133	13	11 ſtan.

	oz.	dwt	gr.
	145	4	12
			$20\frac{1}{4}$
	2904	10	0
	36	6	3
2)	2940	16	3
11)	1470	8	$1\frac{1}{2}$
	133	13	11

But the beſt method to reſolve theſe queſtions, is by finding the betterneſs, or worſeneſs, according to the report, and either adding it to, or ſubſtracting it from the groſs weight. Thus the two laſt examples will be anſwered as follows : *Præ*.12.

```
         dwt.      oz. dwt.    dwt.  ca.gr.  oz. dwt. gr.
     As 222    :   215  12 :: 10½    88  :  145   4  12
                    20                                 7
                 ------                     ----------
                  4312                      8)1016  11  12
                    10½                    11) 127   1  10½
                ------                      ----------
                 43120                 take   11  11   1
                  2156                 from  145   4  12
                ------ 29                   ----------
           222)45276( 20|3                   133  15  11
                876    ----
   remains      210    10  3 to
                      215 12 add
                      ------
                      225 15 ſtand.
```

This is the moſt uſeful Caſe in the whole doctrine, and that by which all the tables for ſtandarding are calculated ; and as thoſe of Mr. Reynolds's are the beſt known, we ſhall ſhew now in what manner they have been form'd, to underſtand which, it ſhould be premiſed, that the troy grain is divided into 20 mites, and the mite into 37 parts.

Example

Example 13. How much ſtandard is contained in one pennyweight of ſilver Wo. [illegible] that is 221½ dwt. or 443 half pennyweights worſe.

½dwt.
From 444 in ſtandard
Take 443 in the report
1

½dwt. dwt. ½dwt. dwt. gr. m. pt.
Then 444 : 1 :: 1 : $\frac{1}{444}$th = 0 1 3 in 1 dt.
24 20
24 ſtan. 1 1 23 in 1oz.
20 mites in 1 dwt. 12
444)480(1 mite ſtan. 12 19 17 in 1lb.
36
37 parts in 1 mite
252
108
444)1332(3 parts

The ſtandard in 1 dwt. being thus found, by addition we have all thoſe from thence to 1 oz. to 1 lb. and ſo on to 500 lb.

Theſe operations being repeated for each ½ dwt. will form Mr. Reynolds's ſilver tables.

Example 14. How much ſtandard does 1 dwt. of gold contain which is Wo. car. gr. 0 0 $\frac{1}{4}$ or 351 quarter carat grains?

cr. gr. dwt. cr. gr. dwt. gr. m pt.
As 352 : 1 :: 1 : $\frac{1}{352}$ = 0 1 8 in 1 dt.

ca. gr.
From 352
Take 351
1

24
24
20
352)480(1 mite
128
22 parts in 1 mite
256
256
352)2816(8 parts

20
ſtand. 1 7 6 in 1 oz.
12
ſtan. 16 7 6 in 1 lb.

Theſe operations being repeated for each quarter carat grain will form the gold tables.

Mr. Hayes's tables differ from Mr. Reynolds's in dividing the grain into 1000 decimal parts, inſtead of 740 parts in the ſilver, and 440 in the gold; thus, 1 dwt. of the ſilver, inſtead of 1 m. 3 pts. is 0,054 gr. and 1 oz. is 1,081 gr. inſtead of 1 gr. 1 m. 23 pts. and in the gold, inſtead of 1 m. 8 pts. it is 0,068 gr. for 1 dwt. 1,363 gr. inſtead of 1 gr. 6 m. 6 pts. for 1 oz. and 16,818 gr. inſtead of 16 gr. 7 m. 6 pts. for 1 lb.

CASE

CASE VII.

Given the groſs weight and the ſtandard weight, required the report or fineneſs. *Præcog.* XV.

Example 15. A ſilver ingot which weighs 176 oz. 12 dwt. has 183 oz. 18 dwt. of ſtandard, what is the fineneſs?

```
    oz.  dwt.  dwt.      oz. dwt.   dwt.
As 176   12 : 222 ::  183  18  :  230½
    20                  20
   ----                ----
   3542                3678
                        222
                       ----
                       7356
                      7356
                     7356
                    ------ dwt.              dwt
             3542)816516(230½ or Br. viij    ob
                   10811    222 ſtan.
                    1856    ---
                             8½ report
```

The remainder if leſs than ½, is not put in the quotient, and if more only the half is taken notice of. *Præcog.* VI.

Example 16. An ingot of gold weighing 110 oz. 5 dwt 13 gr. has no more than 95 oz. 13 dwt. 17 gr. of ſtandard, how fine is the ingot?

```
    oz. dwt. gr.  car.  oz. dwt. gr.    ca. gr.
As  110  5  13  :  24 :: 95  13  17  :  20  0¾
     20                 20
    ----               ----
   2205                1913
     24                  24
   ----               -----
   8833               45929
   4410                  24      ca. gr.
  -----            ---------     22 0 ſtan   car  gr
  52933      52933)1102296(20 3¼  Wo.  j    0¾
                   -------  ------
                     43636   1 0¾  report
                         4
                    ------
             52933)174544(3  car. grains
                   ------
                    15745
                        4
                    -----
             52933)62980(1  quarter
                   -----
                   10047
```

Case VIII.

Given the fineneſs, and the ſtandard weight, required the groſs weight. *Præcog.* XV.

Example 16. An ingot of ſilver which is reported Wo. $\overset{03}{\mathrm{j}}$ vij contains 345 oz. 2 dwt. of ſtandard, what is the groſs weight?

Then

dwt. oz. dwt. dwt.
As 195 : 345 2 :: 222
20

dwt.
222 6902
27 222

195 13804
13804
13804
20)
195)1532244(785|7
1672 392 17 15 groſs wt.
1124
1494

129
24

195)3096(15 grains

Example XVII. An ingot of gold has in it 77 oz. 13 dwt. 18 gr. of ſtandard, and is reported Br. $\overset{\text{car}}{1}$ $\overset{\text{gr}}{1}$ what does it weigh?

cr. gr. oz. dwt. gr. car.gr. oz. dwt.
As 94 : 77 13 18 :: 88 : 72 14
20

car gr.
88 1553
6 24

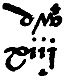
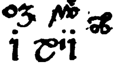
94 37290
88
24) 20)
94)3281520(34909 (145| 4
461 109 72 14 gr. wt.
855 130
920 100

74 4

CASE

Case IX.

Given the weight, and fineneſs of one ingot, and the weight of another, to find what weight of it will make them both ſtandard. *Præcog.* XV.

Example 18. How much muſt I melt of ſilver Br.  with 333 oz 13 dwt. which is Wo.  to make the whole ſtandard ?

dwt. oz. dwt. dwt.		oz. dwt.
As 13 : 333 13 ∷ 32 $\frac{1}{2}$		333 13
20		2 $\frac{1}{2}$
6673	13)32$\frac{1}{2}$(2$\frac{1}{2}$	667 6
32$\frac{1}{2}$		166 16$\frac{1}{2}$
13346		834 2$\frac{1}{2}$
20019		
3336$\frac{1}{2}$		
13)21687 2$\frac{1}{2}$		
2|0)1668|2$\frac{1}{2}$		
834 2 12		

The work of theſe queſtions will be much ſhortened when the fineneſs of the given ingot can be divided by that of the required one, as in the preſent caſe 32$\frac{1}{2}$ is 2$\frac{1}{2}$ times 13, and we have worked it both ways, as likewiſe the next example.

Example 19. What quantity of gold reported Br. $\overset{car}{\text{j}}\ \overset{gr}{\text{ij}}$ will ſtandard 549 oz. 1 dwt. 11 gr. reported Wo. $\overset{car}{\text{iij}}\ \overset{gr}{\text{j}}$

cr.gr. oz. dwt. gr. cr. gr. — oz. dwt. gr.

As 6 : 549 1 11 :: 13 Or thus 549 1 11

13 — 2$\frac{1}{6}$

6)7137 18 23 — 6)13(2$\frac{1}{6}$ — 1098 2 22

1189 13 3$\frac{5}{6}$ — 91 10 5$\frac{1}{6}$

1189 13 3$\frac{5}{6}$

Example 20. A gold ingot reported Wo. $\overset{car}{\text{iij}}\ \overset{gr}{\text{ij}}$ ſs requires 665 oz. 17 dwt. 21 gr. of fine gold to ſtandard it, what does it contain?

car. cr. gr — oz. dwt. gr.

2 or 8 report fine gold — 665 17 21

3 2$\frac{1}{2}$ = 14$\frac{1}{2}$ that of report — 8

2

or 29 half ca. gr. — 5327 3 0

2

oz. dwt gr.

29)10654 6 0(367 7 19

195

214

11

20

29(226(7 dwt.

23

24

29 552(19 gr.

This

This is a very uſeful caſe, and that by which the tables are formed, for ſtandarding ingots of any fineneſs that are worſe, with others that are better than ſtandard.

CASE X.

Given the weight of two ingots, which being melted together are ſtandard, and the fineneſs of one required that of the other. *Præcog.* XVI.

Example 21. Two ſilver ingots weighing 287 oz. 3 dwt. and 898 oz. 19 are melted together and found to be ſtandard, the firſt was Wo. $\overset{oz}{ij}$ $\overset{dwt}{viij}$ how fine was the other?

oz. dwt. oz. dwt. oz. dwt.
898 19 : 2 8 :: 287 3
20 20 20

17979 48 5743
48

45944
22972

17979)275664(15 or Br. $\overset{dwt}{xv}$
95874

for what remains 5979 ſee examp. 15.

Example

Example 22. An ingot of 665 oz. 17 dwt. 21 gr. of fine gold is melted with another ingot of 367 oz. 7 dwt. 19 gr. which made it ſtandard, how fine was the laſt ingot?

```
          oz.  dwt. gr.    cr.     oz.  dwt. gr.
    As 367   7  19   :  2  ::  665   17  21
        20              4       20
       ----            --     -----
      7347              8     13317
        24                       24
     -----                    -----
     29407                    53289
    14694                    26634
    ------                   ------
    176347                   319629
                                  8
                     ---------------  ca. gr.
               176347)2557032(14½
                        793562   8 alloy in ſtan.
               remains   88174  --        cr gr
                                6½ or Wo. 1 1 [illegible]
```

CASE XI.

Wherein is given the fineneſſes of two ingots, which when melted together are ſtandard, and the weight of one of them, to find that of the other. *Præcog.* XV.

Example 23. An ingot of ſilver weighing 79 oz. 8 dwt. Br. $\overset{\text{ↄ/Nº}}{\text{vij}}$, and another reported Wo. $\overset{\text{ↄ/Nº}}{\text{iij}}$ ob being melted together are ſtandard, what does the laſt ingot weigh?

	dwt.	oz.	dwt.		dwt.			
As	$3\frac{1}{2}$:	79	8	::	7	Or thus	$3\frac{1}{2})7(2$	
	2		7					
	7	555	16				oz.	dwt.
			2				79	8
		7)1111	12					2
		158	16				158	16

Example 24. An ingot of gold reported Wo. $\overset{\text{ca}}{\text{i}}\ \overset{\text{gr}}{\text{i}}$ requires 126 oz. 6 dwt. 18 gr. of gold Br. $\overset{\text{car}}{\text{i}}\ \overset{\text{gr}}{\text{iij}}$ to ſtandard it, what is the weight of the ingot?

	ca.	oz.	dwt	gr.		cr.				
As	$1\frac{1}{4}$:	126	6	18	::	$1\frac{3}{4}$	Or thus	$5)7(1\frac{2}{5}$		
	4			7		4				
	5	5)884	7	6		7		oz.	dwt.	gr.
		176	17	$10\frac{4}{5}$				126	6	18
										$1\frac{2}{5}$
								126	6	18
								25	5	$8\frac{2}{5}$
								25	5	$8\frac{2}{5}$
								176	17	$10\frac{4}{5}$

CASE XII.

Given the weights of two or more ingots which are melted together, and the fineneſs of one of them, required the quantity of ſtandard contained in the maſs. *Præcog.* XVI.

Example 25. An ingot of ſilver weighing 97 oz. 15 dwt. Br. $\overset{\text{dwt}}{\text{ix}}$ is melted with another which weighs 40 oz. Wo. $\overset{\text{dwt}}{\text{xvij}}$ how much ſtandard is there in the maſs?

```
oz. dwt.      dwt.       oz. dwt.   oz.

 97  15       222         97  15     40
 40   0         9         20         40
 ------       ---        ----       ---
137  15       231       1955        800
 20           ---        231        205
------        222       ----       ----
2755           17       1955       4000
              ---      5865     1600
              205     3910      -------
                     -------    164000
                     451605     451605
                                -------  2|0)
                    222)615605(277|3
                         1716      138 13ſtan.
                          1620
                            665
```

Example

Example 25. A gold ingot of 28 oz. 18 dwt. Wo. $\overset{car}{ij}$ $\overset{gr}{iij}$ is melted with another weighing 48 oz. 8 dwt. Br. $\overset{car}{i}$ $\overset{gr}{i}\frac{1}{4}$ what ſtandard does the maſs contain ?

```
ca.gr.        oz. dwt.        oz.  dwt.
88            48   8          28   18
- 5¼          20              20
----          ----            ----
93¼           968             578
---            93¼             77
88            -----           -----
11            2904            4046
---          8712            4046
77            242             -------
              -----        to 44506
              90266       add 90266
                          ---------  2|0)
                         88)134772(153|1
                             467      76 11 ½ ſtand.
                              277
                               132
                                44
```

If the ingots are both better or both worſe, the queſtion is beſt worked by the number of fine parts in each; but if ſome are better and others worſe, it is eaſier done by the fine parts in the report as follows.

```
       Example 24.                         Example. 25
   oz.               oz. dwt.        oz.  dwt.      oz. dwt.
    40                97 15          48    8        28  18
    20                20             20             20
   ----              ----            ----           ----
   800              1955             968            578
    17                 9              5¼             11
   ----              ----            ----           ----
 13600              17595           4840 from 6358
 ------             13600            242 take 5082
 oz. dwt.           ------ dwt.      ----           ------
 97 15        222) 3995(18          5082       88)1276(14½
 40  0              1775                           396
 ------                             oz. dwt.            44
137 15                              48   8
     18                             28  18
 ------                        from 77   6
138 13 standard                take     14½
                                    ----------
                                    76 11½ stand.
```

Or thus without reduction.

```
       oz. dwt.       oz.     oz. dwt.      oz. dwt.
        97 15          40      28 18         48  8
            9          47         11              5¼
       ------         ---     -------       -------
  from 879 15         680     317 18         242  0
  take 680  0                 254  2          12  2
       -------                -------       -------
       199 15                  63 16         254  2
        20                     20
       ----                   ----
 222)3995(18 dwt.       88)1726(14½
     1775                   396
                             44
```

Case XIII.

Given the weights, or fineneſſes, of two or more ingots which are melted together, required the fineneſs of the maſs. *Præcog.* XVI.

Example

Example 26. Two ſilver ingots are melted together, one weighs 111 oz. 12 dwt. Br. $\overset{dwt}{11}$ the other 74 oz. 8 dwt. Wo. $\overset{dwt}{19}$ how fine is the maſs ?

```
  oz.   dwt.      oz. dwt.         oz. dwt.
   74    8        111  12          111  12
   20              74   8           20
  ------         --------         -------
  1488            186   0          2232
   203             20               233
 ------          ------          -------
  4464           3720              6696
 2976                             6696
 ------                          4464
 302064                          ------
                               to 520056
                             add 302064 dwt.      dwt
                                 ------- 222
                           372|0)822212|0(221 or Wo. :
                                  781     ----
                                   372      1
```

Or thus without reduction.

```
        oz.   dwt.                 oz. dwt.
        111  12                    74  8
             233                      203
       ----------                 --------
        334  16                   223  4
       3348   0                 14880  0
      22320   0                -----------
     -----------                15103  4
      26002  16
      15103   4
     -----------
  186)41106   0(221
       390
       186
```

Example

Example 27. Two ingots of gold are melted together, the first weighs 169 oz. 16 dwt. Wo. $\overset{car}{ij}$ $\overset{gr}{j}$ the ſecond 76 oz. 16 dwt. Br. $\overset{cr}{j}$ $\overset{gr}{ij}$ ¼ what is the report of the maſs ?

```
 oz. dwt.    oz. dwt.     oz. dwt.
 76  16      169  16      169  16
 20           76  16       20
 ------      -------      ------
 1536        246  12      3396
   94¼        20            79
 ------      ----         ------
  6144       4932         30564
 13824                   23772
   384                   ------
 ------             add  268284
 144768             to   144768
                         ------                 car gr
                  4932)413052(83¾ Wo.   j    o   ¼
                       18492  88
                        3696 ----
                               4¼
```

If the ingots are both better or both worſe it is beſt to work them by the total number of fine parts as above, but if one is better and the other worſe, it is eaſieſt worked by the fine parts in the report as Examp. 24 and 25 in the laſt caſe.

```
 oz. dwt.     car. dwt.    oz. dwt.     oz. dwt.
 74   8       111  12      76  16      169  16
 20            20          20           20
 ----          ----        ----         ----
 1488          2232        1536         3396
   19            11          6¼            9
 -----         -----       -----        -----
 28272take24552            9216         30564
      from 28272            384          9000
                           -----
           ---------       9600         --------      tr  gr
 3720)  3720(1                    4932)20964(4¼Wo. j  o¼
  or Wo. j [illegible]                   1236
```

CASE

CASE XIV.

Given the groſs weight of an ingot of parting, with the report of the fine gold and fine ſilver in the lb. wt. required the quantity of each in the ingot.

Example 28. How much fine gold and fine ſilver is contained in an ingot of parting, weighing 158 oz. 10 dwt. reported Wo. $\overset{\text{oz}}{\text{i}}\ \overset{\text{dwt}}{\text{ʊ}^{\text{b}}\text{i}}$ fine gold $\overset{\text{oz}}{\text{i}}\ \overset{\text{dwt}}{\text{iiij}}$?

```
   oz. dwt.                  dwt.

  158  10          from 3170 groſs wt.
   20               take  317 fine gold
  ----                   ----
  3170           remains 2853  ſilver and alloy
    24                    186
  ----                   ----
 12680                  17118
 6340                   22824
 ------- 29             2853
2|40)7608|0(31|7 fine gold  ------- 2|0
  40     15 17    24|0)53065|8(221|1 fine ſilv.
 168                     50      110 11
                          26
                           25
                            18 parts of a dwt.
```

CASE XV.

Given the groſs weight of an ingot, the report of the gold, and the quantity of fine ſilver in the ingot, required the report of the ſilver, and the quantity of fine gold.

Example 30. An ingot of parting weighs 105 oz. 12 dwt. has 95 oz. 11 dwt. of fine ſilver, and the gold is reported [illegible] in the lb. wt. how much fine gold is there in the ingot, and what is the report of the ſilver?

```
     oz.  dwt.                           oz.  dwt.
     105  12                              95  11
      20                                  20
     ----                                ----
    2112                                1911
      25 gold report                     240
    -----                               -----
   10560                                7644
   4224                                3822
   ------- 2112 gr.wt.                 -------
48|0)5280|0( 110fi.gold 2002)45864|0(229 Br.vij
   48         ----            5824    222
          2002 of ſilv. & al. 1820    ---
                               182    7 report
```

CASE XVI.

Given the groſs weight, the weight of the fine gold, and the report of the ſilver, required the quantity of fine ſilver, and report of the gold.

Example 31. An ingot of parting weighs 156 oz. 16 dwt. the ſilver is reported Wo. [illegible] it has 9 oz. 16 dwt. of fine gold in it, what is the report of the gold, and the quantity of fine ſilver in the ingot?

```
             oz. dwt.                  oz. dwt.
              9  16                    156 16
              20                          20
             ----                     ------
             196                        3136
             240                         196 fine gold
            -----                     ------
            7840                        2940
           3920                          205 ſil. report
          ------ dwt.                 ------
     3136)47040(15 gold report         14700
          15680                       5880
                                   ---------
                                   24|0)60270|0( 251|1
                                        122        125 11 1/4
                                          27       [fine ſilver
                                          30
                                           60
```

CASE XVII.

Given the groſs weight of an ingot of parting, and the weights of fine gold, and fine ſilver, to find the reports.

Example 32. An ingot of parting weighs 252 oz. 15 dwt. has 211 oz. 7 dwt. of fine ſilver, and 16 oz. 17 dwt. of fine gold, what are the reports?

```
oz. dwt.          oz. dwt.                       oz. dwt.
 252 15            211 7                          16 17
  20                20                             20
 ----              ----                           ----
5055 gr.wt.       4227                            337
 337 fine gold     240                            240
 ----             ------                         ------
4718           169080                           13480
                84540                            6740
               -------  222 ſtand.              ------  dwt.
   4718)1014480(215 Worſe           5055)80880(16 gold
                7088  ----                 30330 [report
               23700    7 ſilver report
                 110
```

CASE XVIII.

Given the report of the ſilver, the quantity of fine ſilver, and the quantity of fine gold, required the gold report, and groſs weight.

Example 31. An ingot of parting has the ſilver reported Br. [illegible] it contains 46 oz. 11 dwt. of fine ſilver, and 5 oz. 10 dwt. of fine gold, what is the groſs weight, and the gold report?

```
           oz. dwt.                        oz. dwt.
           46 11                            5 10
           20                               20
           ----                            ----
           931                             110
           240                             240
           -----                           ----
          37240                            440
         18620                            220
         --------        [and alloy       ----    dwt.
  228 )223440(980 fine ſilver  109|0)2640|0(24 gold
          1824  110 fine gold             460      [report
               ----                remains 24 pts. of a dt.
               109|0                        24
                54 10 groſs wt.            ----
                                            96
                                           48
                                          ----
                                   109)576(5 grains,
                                           31
```

N. B. They never report leſs than 6 grains

CASE XIX.

Given the gold report, the quantity of fine gold, and the quantity of fine ſilver, to find the report of the ſilver, and the groſs weight.

Example 32. A parting ingot contains 12 oz. 12 dwt. of fine ſilver, and the gold report is [illegible] in the lb. what is the weight of the ingot, and the report of the ſilver?

```
   oz. dwt.                       oz. dwt.
   12  12                        139  18
   20                             20
   ——                            ——
  252                           2798
  240                            240
 ————                          —————
 10080                         111920
 5040                          55960   dwt.
 ————                          —————   222 ſta. [illegible]
18)60480(3360groſswt. 3108)671520(216 or Wo.[illegible]
   64     252 fine gold    4992     —
   108    ———              18840   6 report
          3108 ſil. & alloy  192
```

CASE XX.

Given the groſs weight, and reports, of two or more ingots of parting, to find the quantity of fine gold and fine ſilver in the maſs?

Example

Example 34. An ingot of parting weighing 97 oz. 4 dwt. reported fine gold $\overset{\text{oz.}}{\text{j}}$ $\overset{\text{dwt.}}{\text{x}}$ Br. $\overset{\text{dwt.}}{\text{vij}}$ is melted with another weighing 72 oz. 16 dwt. the silver reported Wo. $\overset{\text{oz.}}{\text{j}}$ $\overset{\text{dwt.}}{\text{iiij}}$ fine gold $\overset{\text{dwt.}}{\text{xv}}$ what is the quantity of fine gold, and fine silver in the maſs and the report ?

```
dwt.                  oz. dwt.
 222                  97  4 groſs wt.
   7                  20
 ---                 ----
 229                1944  dwt.
     gold report      30  1944
                   -----
           24|0)5832|0 ( 243
                   103  1701 ſilver and alloy
                    72   229
                        -----
                       15309
                       3402
                      3402     dwt.
                     ------
               24|0)38952|9(1623 fine ſilver


        oz.  dwt.
        72   16  groſs wt.
        20
      -----
       1456
gol. report 15   dwt.
          ----- 1456
  24|0)2184|0(    91
         24      ----
                1365 ſilver and alloy
                 198
               -----
               10920
              12285
              1365
             -------
       24|0)27027|0(1126 fine ſilver
```

dwt.
243 fi. gold in the 9 oz. 4 dwt.
91 fi. gold in the 7 oz. 16 dwt.

334 quantity fine gold in mass
240

gross wt, 1944 13360
ditto 1456 6680

dwt. gr. (in the mass
total gr. wt. 34|00)801|60)23 12 report of the gold
121 i ℥. iij dwt ss in lb.
1960
4

34|00)7840(2 quarter dwts. or 12 gr.

dwt.
1126 fine ſilver
1623 fine ſilver

2749 fine ſilver in the maſs
240

dwt.
ſilver & alloy 1365 109960
ditto - 1701 54980

dwt.
total - 3066) 659760(215
222

report of the ſilver in the maſs 7 or Wo. vij dwt

		oz.	dwt.
Quantity of	fine gold -	16	14
	fine ſilver -	137	9

		℥	dwt
*Report	fine gold -	i	iij ss
	ſilver. Wo. -	-	vij

---

* The manner of valuing theſe is found in the next ſection, and the refiner deducts 4d. per oz. for the parting of it.

The

Inſtead of reporting the quantity of fine ſilver contained in a parting aſſay, by the relation it has to ſtandard, or how much it is better or worſe than ſtandard, it is ſometimes reported as the gold by its quantity in the lb. weight.

Example 33. What quantity of fine gold and fine ſilver is contained in an ingot of parting weighing 158 oz. 10 dwt. reported fine gold ℥ i dwt iiij fine ſilver ℥ viij dwt xi?

oz. dwt.	oz. dwt.
158 10	158 10
20	20
3170	3170
24 gold report	171 ſilver report
12680	3170
6340	53890
(20	(20
24|0)7608|0(31|7	24|0)542070(225|8$\frac{5}{8}$ fine ſilver
15 oz. 17 dwt.	112 oz. 18 dt. 15 gr.

How this ſhould have been reported in the uſual way, the following work ſhews.

dwt. dwt. dwt. dwt. dwt.
from 240 Then as 216 : 240 :: 171 : 190
take 24 171

216 fi. ſil. & alloy 240
1680 dwt.
240 222 ſtand.
216)41040(190 take
32 or Wo.
i ℥ xij dwt

Which being caſt up as in Examp. 28. will give the ſame anſwer as above, or 112 oz. 18 dwt. 15 gr. of fine ſilver in the ingot.

The Doctrine of Value.

CASE XXI.

Given the value of an ounce of ſtandard, or that of $\overset{oz.}{\text{xi}}$ $\overset{dwt.}{\text{ij}}$ in ſilver and $\overset{car.}{\text{xxij}}$ in gold to find that of an ounce of any other fineneſs. *Præ.* XIX.

Example 30. When ſtandard ſilver is 5 s. 2 d. per oz. what is an ounce of fine ſilver worth, or that which is Br. $\overset{dwt.}{\text{xviij}}$?

$\overset{dwt.}{\text{As } 222} : \overset{s.\ d.}{5\ \ 2} :: \overset{dwt.}{240}$

12

62

240

2480

1240

$222(14880(67\frac{1}{37}$

5 s. 7 d. per oz.

Or thus $37 : \overset{d.}{62} :: 40$

40

$37)2480(67\frac{1}{37}$

260

Or as $37 : 62 :: 3$

3

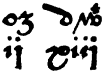
$37)186(\ \overset{d.}{5\frac{1}{37}}$ added

1 . 62 to

$67\frac{1}{37}$

In the ſecond manner of working this queſtion, 222 and 240, being both meaſured by 6, quote 37, and 40, which are their loweſt terms; the third method is by finding the value of the report, and either adding it to, or ſubſtracting it from, the price of ſtandard.

The value of fine ſilver juſt now found, is what it has had in our coin for 164 years paſt, but if it is required when ſtandard is at 5 s. 6d $\frac{3}{5}$, it will be juſt 6 s. for as $37 : 40 :: 5\text{ s } 6\text{ d } \frac{3}{5} : 6\text{s.}$

Example 51. What is the value of an ounce of ſilver reported Wo.  when ſtandard is 5s. 7d. per ounce?

```
     dwt.         dwt.   s. d.        dwt.

from 222      As 222 : 5  7  : :   169
take  53                12          67
     ---               ----        ----
     169                67         1183
                                  1014
                              ----  12)
                            222)11323(51
                                  223  4s 3d per oz.
                                    1
```

The uſual method of finding the value of a ſilver aſſay from the report, is by reckoning the 222 parts or dwts. of which ſtandard ſilver conſiſts, at 5 ſhillings and ſix-pence and $\frac{3}{5}$ of a penny, which is nearly the medium price of ſtandard ſilver per oz. that (being generally between 5s. 3d. and 5s. 9d. per oz.) at which rate each 2 $\frac{1}{2}$ dwt. is worth 3 farthings, 5 dwt. is 1d$\frac{1}{2}$, 7$\frac{1}{2}$ dwt. is 2d$\frac{1}{4}$, 10 dwt. is 3d, 12$\frac{1}{2}$ dwt. is 3d$\frac{3}{4}$, 15 dwt. is 4d$\frac{1}{2}$, 17$\frac{1}{2}$ dwt. is 5d$\frac{1}{4}$, and 20 dwt. or 1 oz. is worth 6 pence, and ſo on for 2, 3, 4, 5, or more ounces. All the other intermediate reports, but thoſe above, conſiſt of fractional parts, more or leſs than a farthing.

In the uſual rating of ſilver by the ounce, one farthing is the loweſt value conſidered, the fractions leſs than that, not being taken notice of; therefore in the following table, we have taken the neareſt value to thoſe of a farthing; whether more or leſs, as where the exceſs is more than $\frac{1}{2}$ a farthing; we have reckoned a farthing for it, and where it is leſs than $\frac{1}{2}$ a farthing, it is not reckoned at all. Thus in the following table, N° 1, 6, 11, 16, 21, 26, 31, and 36, are of the 1ſt ſort, which for $\frac{3}{5}$ of a farthing have one farthing put in the table; and N° 3, 8, 13, 18, 23, 28, 33, and 38, the ſame inſtead of $\frac{4}{5}$ of a farthing; on the contrary, N° 2, 7, 12, 17, 22, 27, 32 and 37, have beſides the farthing in the table $\frac{2}{5}$ of another not taken notice of; and the caſe is the ſame with N° 4, 9, 14, 19, 24, 29, 34 and 39, which have $\frac{1}{5}$ of a farthing unnoticed in the table.

But the true value of theſe intermediate reports, is contained in 1, 3, 7, 9, 11, 13, 17, and 19 twentieths, in 1, 3, 7, and 9 tenths, and 1, 2, 3 and 4 fifths of a penny, and therefore the decimal notation is much the propereſt to be uſed here by thoſe who are acquainted with it.

A TABLE of the value of each ½ dwt. of betterneſs, or worſeneſs, in a ſilver aſſay from 1 halfpenny weight to 40, or to 1 ounce.

No	dwt.	d.	No	dwt.	d.	No	dwt.	d.
1	ob	¼	14	vij	2	27	xiij ob	4
2	j	¼	15	vij ob	2¼	28	xiiij	4¼
3	j ob	½	16	viij	2½	29	xiiij ob	4¼
4	ij	½	17	viij ob	2½	30	xv	4½
5	ij ob	¾	18	ix	2¾	31	xv ob	4¾
6	iij	1	19	ix ob	2¾	32	xvj	4¾
7	iij ob	1	20	x	3	33	xvj ob	5
8	iiij	1¼	21	x ob	3¼	34	xvij	5
9	iiij ob	1¼	22	xj	3¼	35	xvij ob	5¼
10	v	1½	23	xj ob	3½	36	xviij	5½
11	v ob	1¾	24	xij	3½	37	xviij ob	5½
12	vj	1¾	25	xij ob	3¾	38	xix	5¾
13	vj ob	2	26	xiij	4	39	xix ob	5¾
						40	j oz	6

If the values are calculated to ½ a farthing, or one 8th of a penny per oz. then the following reports will have the following values, inſtead of thoſe above, but the others will ſtill ſtand as they do there.

1	ob	⅛	16	viij	2⅜	29	xiiij ob	4⅜
4	ij	⅝	19	ix ob	2⅞	31	xv ob	4⅝
6	iij	⅞	21	x ob	3⅛	34	xvij	5⅛
7	iij ob	1⅜	24	xij	3⅝	36	xviij	5⅜
11	v ob	1⅝	26	xiij	3⅞	39	xix ob	5⅞
14	vij	2⅞						

Theſe values being added to, or ſubſtracted from, the price of one ounce of ſtandard will give the value of one ounce of any of theſe fineneſſes; thus the value of an ounce of ſilver Wo. $\overset{oz}{ij}\ \overset{dwt}{xiij}$ as in the laſt Example, is found by the table to be 4 s. 3 d. as before.

	s. d.	s. d.
from the price of 1 oz. of ſtandard		5 7
take for the 2 oz. in the report	1 0	
and for the 13 dwt. in ditto	- 4	
		1 4
remains the value of 1 oz. Wo. $\overset{oz}{ij}\ \overset{dwt}{xiij}$		4 3

The above tables give the juſt value, when ſtandard ſilver is 5 s. 6 d. $\frac{3}{5}$ per oz. but deviates from it as the price is, more or leſs than that, but this difference does not amount to a farthing per oz. nor make any difference in the tabular values between 5 s. 3 d $\frac{1}{2}$, and 5s. 9d$\frac{1}{2}$, (within which rates ſtandard ſilver uſually runs) but when it is at the 1ſt price, each oz. inſtead of 6 d, is but 5d $\frac{3}{4}$, and at the laſt price it becomes 6 d. $\frac{1}{4}$.

Example

Example 32. What is the value of an ounce of fine gold, or that which is Br. $\overset{car}{ij}$ when ſtandard gold is worth 3 l. 18 s. per ounce.

```
   car.  l  s.    ca.                     l  s
As 22 : 3 18 :: 24   Or as 11 : 12 :: 3 18
        20                                12
       ----                            -------
        78                          11)46 16
        24                              4  5 1/11
      ------
       312
      156
     -------20
22)1872(8|5 1/11
    112 4l. 5s.  fine gold per oz.
      2
```

If the price is 3 l 17 s 11 d

```
Then as 11 ; 12 :: 3 17 11
                        12
                  ----------
               11)46 15 0
                   4  5 0 exactly
```

N. B. Our money is coined at 3 l 17 s 10 d $\frac{1}{2}$ per ounce.

Example

Example 33. What is the value of an ounce of gold, reported Wo. $\overset{ca}{1}\ \overset{gr}{3\frac{3}{4}}$ when ſtandard is 3 l 18 s per oz?

```
cr:  ca. gr.     cr. gr.  l.  s.      cr. gr.
22    1  3¾   As 352 : 3  18 :: 323
 4    4               20          78
---  --              ---         ----
88    7               78         2584
 4    4                          2261
---  --                          ----- 29
352  29                    352)25194(71
 29                              554  3l 11s 6d ¾
----                             202
323                               12
                                 -----
                           352)2424(6 pence
                                312
                                  4
                                -----
                           352)1248(3 far-
                                192   [things
```

The readieſt way of finding the value of an ounce of gold of any fineneſs, from the aſſay, is to reckon each carat at 3 s 6 d ½, each carat grain at 10 d ⅝, and each ¼ of a carat grain at 2 d ⅝, which is their value, when ſtandard is at 3 l 17 s 11 d per oz. and the following table is calculated at that price.

A

A TABLE of the value of each quarter carat grain, between 1 and 16, or to one carat, in a gold aſſay, when ſtandard gold is 3 l 17 s 11 d per oz.

cr. gr.	s.	d	ct. gr.	s.	d:	c. gr.	s.	d.	ca. gr.	s.	d.
¼	0	2⅝	j ¼	1	1¼	ij ¼	1	11⅞	iij ¼	2	10½
½	0	5¼	j ½	1	3⅞	ij ½	2	2½	iij ½	3	1¼
¾	0	8	j ¾	1	6	ij ¾	2	5¼	iij ¾	3	3⅞
j ca. gr.	0	10⅝	ij	1	9¼	iij	2	7⅞	j carat	3	6½

But the uſual way with the refiners, is to reckon each carat in an aſſay at 4 s. each carat grain at 1 s. and each quarter carat grain at 3 d; that is, eſtimating ſtandard at 4 l 8 s in the aſſay, and 3 l 18 s in the ingot.

The queſtions in the laſt examples are anſwered by the table as follows:

	l.	s.	d.	
To	3	17	11	value of ſtandard
Add	0	7	1	value of 2 carats
Value of	4	5	0	fine gold per oz.

	l.	s.	d.	
From	3	18	0	value of ſtandard
Take	0	6	5	value of 1 car. 2 gr. ¼
Value of	3	11	7	gold Wo. 1 car. 2¼ gr.

CASE

CASE XXIII.

Given the fineneſſes of two ſorts, of gold or ſilver, and the value of one of them to find that of the other. *Præcog.* XX.

Example 33. An ounce of ſilver Wo. $\overset{oz.}{1}\ \overset{dwt.}{15}$ being worth 4 s. 8 d. what is the price of ſtandard?

```
dwt.         dwt.   s. d.    dwt.

222       As 187 : 4 8 :: 222
 35                12        56
----              ----     -----
187                56      1332
                          1110
                          -------- 12)
                     187)12432(66
                          1212     5s. 6d. ½
                            90
```

By the Table

```
      s.  d.
Add   0  10 ½ for 1 oz. 15 dwt. worſe
To    4   8   the given value
     ----------
      5   6 ½ Stand.per oz.
```

Example 34. An ounce of gold Br. $\overset{car}{1}$ $\overset{gr.}{3\frac{1}{4}}$ is worth 4 l. 4 s. 4 d. at what price is ſtandard per ounce.

car. cr. gr. ¼cr. gr. l. s. d. ¼ca. gr.

22 1 3¼ As 381 : 4 4 4 :: 352

4 4 20

88 7 84

4 4 12

352 29 1012

29 352

381 2024

5060

3036

12)

381)356224(934 $\frac{370}{381}$

1332 7|7 11 nearly

1894 3l 17s 11d ſtan. per oz.

370

By the Table

	l.	s.	d.	
From	4	4	4	the given price
Take	0	6	5	for 1 car. 3¼ gr. Wo.
	3	17	11	Stand. per oz.

Case

CASE XXIV.

Given the value per oz. of two ſorts of gold, or ſilver, and the fineneſs of one of them, to find that of the other. *Præcog.* XX.

Example 35. What is the value of an ounce of new ſterling* ſilver, or that which is Br. when ſtandard is 5 s. 7 d. per oz.

dwt. dwt. s. d. dwt.
222 As 222 : : 5 7 : : 230
8 12 67
230 67 1610
1380
12)
222)15410(69$\frac{3}{8}$
2090 5s. 9d.$\frac{3}{8}$ pr oz
remains 92
8
222)736(3-8ths of a
70 [penny

By the Table

s. d.
To 5 7 ſtandard per oz.
Add 0 2$\frac{3}{8}$ for the 8 dwt. better
5 9$\frac{3}{8}$ value of 1 oz. of new ſterling

---

* By an act of 8 and 9 Wm. III. no other ſilver but of this fineneſs was to be made into plate, after 25 Mar. 1697, which continued in force till 1 June, 1720, when the obligation was taken of, by an act of 6 Geo. I. it is all marked with a Lyon's head eraſed, and a Britannia.

Example 36. What is the value of an ounce of gold Wo. [illegible] when ſtandard is 3 l. 18 s. per ounce?

```
car.         ca.    l.  s.      car.
 22       As 22 : 3  18  :: 19
  3                20       78
 ---              ----     ----
 19                78      152
                           133
                          -----20)
                      22)1482(6|7
                          162  3l. 7s. 4d.[illegible]
                  remains   8
                           12
                          ----
                        22)96(4 pence
                           8
```

By the Table

	l.	s.	d.	
From	3	18	0	price of ſtandard
take	0	10	7½	for 3 carats worſe
	3	7	4½	value per ounce required

CASE

CASE XXV.

Given the weight and fineneſs of an ingot, with the price of ſtandard per oz. to find the value of that ingot. *Præcog.* XXI.

Example 37. What is the value of an ingot of ſilver, weighing 120 oz. 18 dwt. reported Wo. $\overset{\text{oz}}{\text{j}}$ $\overset{\text{dwt}}{\text{iij}}$ ß, ſtandard ſilver being 5 s. 6 d. per ounce?

dwt. — dwt. — oz. dwt. — dwt.

222 — As 222 : 120 18 :: 198½

23½ — 20

198½ — 2418

198½

19344

21762

2418

1209

20)

222)479973(216|2

359 — 108 oz. 2 dwt. ſtan. [in the ingot

1377

453

9

Then

oz. s. d. oz. dwt. l. s. d.

Then as 1 : 5 6 :: 108 2 : 29 14 $6\frac{2}{3}$

20 12 20

20 66 2162

66

19972

12272

~~1 20 0~~

2|0)14269|2

12) 7134 ⅓

2|0) 59|4s 6d

Value 29l 14s $6\frac{2}{3}$d of the ingot

Beſides the above method of performing this queſtion, by which we have firſt found the quantity of ſtandard in the ingot, (as in Example 11. Case VI.) and then caſt it up at the ſtandard price; there is another way of anſwering it.

That is by finding the value of one ounce of the ingot (as in Example 31.) which we have done 3 different ways; 1ſt, by the fine parts in the ingot; 2dly, by thoſe in the report, and then ſubſtracted it from that of ſtandard; laſtly, it is done by the table, which value being multiplyed into the groſs weight, will give the value of the ingot the ſame as before.

1ſt.

dwt. d. dwt.
1ſt. As 222 : 56 :: 198 $\frac{1}{2}$
66

1191
1191

12)
222)13101(59 $\frac{1}{74}$
2001 4 s. 11 d. $\frac{1}{74}$
3

Or the price per oz. may be found thus:

dwt. d. dwt.
2d. As 222 : 66 :: 23 $\frac{1}{2}$
23 $\frac{1}{2}$

198
132
33 d.
66
222)1551(7 nearly
1551
12)59 [per oz.
4s. 11d. value of the ingot

Or thus by the Table

		s.	d.	
3d.	From	5	6	price of ſtandard
	Take	0	7	for 23 $\frac{1}{2}$ dwt. worſe
	Value	4	11	of the ingot per oz.

Then

Then for the value of the ingot, it will be

oz. s. d. oz. dwt. l. s. d.
As 1 : 4 11 :: 120 18 : 29 14 6¼
20 12 20
20 59 2418
59
21762
12090
2|0)14266|2
12) 7133
2|0) 59|4 5
29l 14s 5d value of ingot

We have reſolved the above queſtion in the ſame manner as moſt of the others; that is, by reduction and the rule of three; but we will now ſhew how it may be done by practice, as being the readieſt in buſineſs, which is perfom'd by taking the aliquot parts either of the value or the weight, and we have worked it both ways, and likewiſe both by the ſtandard weight and the groſs weight.

oz. dwt. s. d.
108 2 at 5 6
5
5 s. | 540
6 d. | 54
2 dwt. | 0 6½
2|0)59|4 6½
29l. 14s. 6d½

9
2 9 6
12
29 14 0 value of 108 oz.
6⅗ ditto of 2 dwt.
value 29 14 6⅗ of the ingot

```
              oz. dwt.                 s. d.
              120 18       at          4 11
               4                         11
   s. d.    ------                 ----------
   4       |480  0               2  14   1
       11  |110  0                      11
   2 dwt.  |  0  5¾                ---------
  16 dwt.  |  3 11¼  from  29  14  11 for 121 oz.
       7¼  |  0  1½  take           6 for 2 dwt.
           -----------     -------------
            59|4  6½      to 29  14  5
            29l 14s 6d add          1½ for 7¼
                                 ---------
                              29 14  6½
```

Beſides the firſt method of reſolving this queſtion by two ſtatings, it may be reſolved at one; that is, as the oz. of ſtandard multiplied by its fineneſs is to its value, ſo is the given weight multiplied by the given fineneſs to the required value; or, as 480 gr. × 222 dwt. : 5s. 6½d. :: 120 oz. 18 dwt. × 198½ : 29l. 14s. 6½d.

Example 38. What is the value of 84 ounces of gold Br. $\overset{\text{car}}{1}$ $\overset{\text{gr}}{{}^{1}1}$ when ſtandard gold is 3l. 18s. per ounce?

```
        oz. dwt. gr.                           oz. dwt. gr.
        84  16  12                             84  16  12
                23½                                     1½
        ----------            20)              ----------
       254   9  12            13|0              84  16  12
      1696  10   0            6 10              42   8   6
        42   8   6                             ----------
     -------------                          2)127   4  18
   2)1997    7  18                         11) 63  12   9
  11) 996   13  21                         add  5  15  16
        90  12   4 [of ſtand.]              to 84  16  12
                                               ----------
                                   ſtandard    90  12   4
```

oz.	dwt.	gr.		l.	s.	
90	12	4	of ſtandard at	3	18	per oz.
3					15	

3 l.	270		
2 s.	9		
16 s.	72		
10 dwt.	1	19	
2 dwt.	0	7	$9\frac{3}{5}$
4 gr.	0	0	$7\frac{3}{4}$
	353	7	$5\frac{1}{2}$

	58	10	
		6	
90 oz.	359	0	
10 dwt.	1	19	
2 dwt.	0	7	$9\frac{3}{5}$
4 gr.	0	0	$7\frac{3}{4}$
value required	353	7	$5\frac{1}{2}$

We have found the quantity of ſtandard by two different methods, and caſt up their value at the price of ſtandard per oz. two different ways alſo; we ſhall now find the value of the gold per oz. (three different ways) and caſt it up by the groſs weight.

l.	s.			l.	s.					
3	18			3	18					
	$23\frac{1}{2}$				$1\frac{1}{2}$		By the table			
11	14			3	18		to	3	18	0
78	0			1	19		add	0	5	$3\frac{3}{4}$
1	19							4	3	$3\frac{3}{4}$
2)91	13			2)5	17					
11)45	16	6		11)2	18	6				
4	3	$3\frac{9}{11}$	add	0	5	$3\frac{9}{11}$				
			to	3	18	0				
				4	3	$3\frac{9}{11}$	value per oz.			

	oz.	dwt.	gr.		l.	s.	d.
	84	16	12 grofs wt. at		4	3	$3\frac{9}{11}$
	4						7
4 l.	336				29	3	$2\frac{8}{11}$
3 s.	12	12					12
3 d.	1	1					
$\frac{9}{11}$d.	0	5	$8\frac{8}{11}$	84 oz.	349	18	$8\frac{8}{11}$
4 dwt.	0	16	8	4 dwt	0	16	8
12 dwt.	2	10	0	12 dwt.	2	10	0
$\frac{1}{2}$ dwt.	0	2	1	$\frac{1}{2}$ dwt.	0	2	1
	353	7	$5\frac{8}{11}$ val. pr oz.		353	7	$5\frac{8}{11}$

CASE XXVI.

Given the report of a parting aſſay, and the price of ſtandard gold and ſilver per oz. to find the value of an ounce of the parting.

Example 39. What is the value of a parting aſſay, reported fine gold $\overset{oz}{1}$ [illegible] Wo. [illegible] ſtandard gold being 3l. 17s. 11d. and ſtandard ſilver 5s 6½d per oz.

1ſt. Find the quantity of ſilver by ſubtracting the quantity of fine gold from 12 oz. 2d. find the value of the ſilver per oz. 3d. find the value of the ſilver in 1 lb.wt. 4th. to that value add the value of the fine gold, which will give the value of 1 lb. wt. of the maſs; laſtly, divide it by 12 gives the value of one ounce of the maſs.

```
        oz. dwt.                       s.  d.
From    12   0 groſs wt.  From         5   6½ ſtand.
Take     1  10 fine gold   take            4½ for 15
        ------                        ------  [dwt.
        10  10 ſilver and alloy at     5   2
                                          10
                                      --------
                         10 oz   |2   11   8
                         10 dwt. |     2   7
                                 -----------
value of the ſilver in 1lb. wt. 2   14 - 3
```

to 3 l.

l. s. d.

to 3 17 11 ſtandard
add 7 1 for 2 carats

1 oz. | 4 5 0 fine gold per oz.
10 dwt | 2 2 6

Value of the 6 7 6 gold in 1 lb.
Value of the 2 14 3 ſilver in 1 lb.

12)9 1 9
Value of the 15 1$\frac{3}{4}$ parting per oz.

Example 40. What is the value of a parting aſſay reported fine gold $\overset{\text{oz.}}{\text{ij}}\ \overset{\text{dwt.}}{\text{iiij}}$ Wo. $\overset{\text{oz.}}{\text{i}}\ \overset{\text{dwt.}}{\text{xii}}$ ſtandard gold being 3 l. 17 s. 11 d. and ſtandard ſilver 5 s. 6$\frac{1}{2}$d per oz.

oz. dwt. l. s.

from 12 0 or 1 lb. wt. from 5 6$\frac{1}{2}$ ſtandard
take 1 4 fine gold take 0 9$\frac{1}{2}$ for 1 oz. 12 dwt.

10 16 ſil. and alloy at 4 9 ſilver per oz.
10

oz. dwt.
10 | 2 7 6
4 | 0 11$\frac{2}{5}$
12 | 2 10$\frac{1}{5}$

value the ſilver in 1 lb. wt. 2 11 3$\frac{3}{5}$

To

	l.	s.	d.	
To	3	17	11	
Add	0	7	1	
1 oz.	4	5	0	fine gold per oz.
10 dwt.	0	17	0	
	5	2	0	value of gold in 1 lb.
	2	11	$3\frac{3}{5}$	value of ſilver in 1 lb.
12)	7	13	$3\frac{3}{5}$	value of 1 lb. of the maſs
		12	$9\frac{3}{10}$	value of 1 oz.

If in the above aſſay the quantity of fine ſilver in the lb. wt. had been reported, inſtead of its worſeneſs, it would have been oz. dwt. viij 12 as appears from the method made uſe of in Examp. 33 (p. 40.) which being caſt up at 6 s. per oz. amounts to 2l. 11s. $3\frac{3}{5}$d. as before in the other manner of reporting, and the value of the aſſay is the ſame both ways.

But the eaſieſt way in buſineſs, to caſt up the value of theſe aſſays, after having found the value of the ſilver per oz. by the table, is,

Firſt, to put down for each ſhilling of this value, one penny; and for the parts of a ſhilling, what ſtands againſt ſuch parts, in the little table A; and this as often as there are ounces of fine gold in the report.

Secondly, To this add, what ſtands in the table B, on the ſide againſt ſuch parts of the oz. as are in the gold report, and under the value laſt found at the top.

Thirdly, Take this ſum from the aforeſaid value of the ſilver, and to the remainder add out of table C. for each oz. of fine gold 7s. 1d. for each dwt. 4¼d. and for each ¼ dwt. or 6 grains 1d. and you have the value of the aſſay per ounce.

Here follows the three tables.

A TABLE of what is to be taken from the value of an ounce of ſilver between 1 penny and 1 ſhilling, for each ounce of fine gold in the report.

TABLE A.

between	d.	between		between		between	
d. d.		d. d.	d.	d. d.	d.	d. d.	d
1 & 2¼	⅛	4 & 5¼	⅜	7¼ & 8¼	⅝	10 & 11¼	⅞.
2½ & 3¾	¼	5½ & 6¾	½	8½ & 2¾	¾	11¼ & 12	1

TABLE

A Table of what is to be taken from the value of an ounce of the ſilver, for each dwt. of fine gold in the report.

TABLE B.

dwt.	d. 2	d. 2¼	d. 2½	d. 2¾	d. 3	d. 3¼	d. 3½	d. 3¾
½ & ¾	—	—	—	—	—	—	⅛	⅛
1	⅛	⅛	⅛	⅛	⅛	⅛	¼	¼
2	¼	¼	¼	¼	¼	¼	¼	⅜
3	¼	¼	⅜	⅜	½	½	½	½
4	⅜	½	½	⅜	½	¾	¾	¾
5	½	½	⅝	½	¾	¾	⅞	1
6	½	⅝	¾	¾	⅞	1	1	1⅛
7	¾	⅞	⅞	1	1	1⅛	1¼	1¼
8	¾	⅞	1	1	1¼	1¼	1⅜	1½
9	⅞	1	1⅛	1¼	1¼	1½	1½	1¾
10	1	1⅛	1¼	1⅜	1½	1⅝	1¾	1⅞
11	1	1¼	1⅜	1½	1¾	1¾	1⅞	2
12	1¼	1⅜	1½	1½	1¾	2	2	2¼
13	1¼	1½	1⅝	1¾	2	2⅛	2¼	2½
14	1⅜	1½	1¾	1⅞	2	2¼	2½	2⅝
15	1½	1⅝	1⅞	2	2¼	2½	2⅝	2¾
16	1½	1¾	2	2¼	2⅜	2½	2¾	3
17	1¾	1¾	2⅛	2¼	2½	2¾	3	3¼
18	1¾	2	2¼	2½	2¾	2⅞	3⅛	3⅜
19	1⅞	2⅛	2⅜	2⅝	2¾	3	3¼	3½
20	2	2¼	2½	2¾	3	3¼	3½	3¾

TABLE

A Table of what is to be taken from the value of an ounce of the ſilver, for each dwt. of fine gold in the report.

TABLE B. continued.

dwt.	d. 4	d. 4¼	d. 4½	d. 4¾	d. 5	d. 5¼	d. 5½	d. 5¾	d. 6
½ & ¾	⅛	⅛	⅛	⅛	⅛	⅛	⅛	⅛	⅛
1	⅛	¼	¼	¼	¼	¼	¼	¼	¼
2	½	½	½	½	½	½	½	½	½
3	½	⅝	⅝	¾	¾	¾	¾	⅞	⅞
4	¾	¾	⅞	1	1	1	1	1⅛	1¼
5	1	1	1⅛	1¼	1¼	1¼	1⅜	1½	1½
6	1¼	1¼	1¼	1⅜	1½	1½	1⅝	1¾	2
7	1⅜	1½	1½	1⅝	1¾	1¾	1⅞	2	2⅛
8	1½	1¾	1¾	1⅞	2	2	2¼	2¼	2½
9	1¾	1⅞	2	2⅛	2¼	2⅜	2½	2½	2¾
10	2	2⅛	2¼	2⅜	2½	2⅝	2¾	2⅞	3
11	2¼	2¼	2½	2⅝	2¾	2⅞	3	3⅛	3¼
12	2⅜	2½	2¾	2¾	3	3⅛	3¼	3½	3½
13	2½	2¾	2⅞	3	3¼	3⅜	3½	3⅞	3⅞
14	2¾	3	3⅛	3¼	3½	3⅝	3¾	4	4⅛
15	3	3⅛	3⅜	3½	3¾	3⅞	4⅛	4¼	4½
16	3¼	3⅜	3½	3¾	4	4¼	4⅜	4½	4¾
17	3⅜	3⅝	3¾	4	4¼	4⅜	4½	4⅞	5
18	3½	3¾	4	4¼	4½	4¾	4⅞	5⅛	5⅜
19	3¾	3¾	4¼	4½	4¾	5	5¼	5½	5¾
20	4	4¼	4½	4¾	5	5¼	5½	5¾	6

A Table of the value of the fine gold contained in a parting aſſay, for every ſix grains under one ounce.

TABLE C.

d.gr		s.	d.	dt.	gr.	s.	d.	dt.gr.		s.	d	dt.gr.		s.	d.
	6		1	5	6	1	10¼	10	6	3	7½	15	6	5	4¾
	12		2	5	12	1	11¼	10	12	3	8½	15	12	5	5¾
	1		3	5	18	2	0¼	10	18	3	9½	15	18	5	6¾
1			4¼	6		2	1½	11		3	10¾	16		5	8
1	6		5¼	6	6	2	2½	11	6	3	11¾	16	6	5	9
1	12		6¼	6	12	2	3½	11	12	4	0¾	16	12	5	10
1	18		7¼	6	18	2	4½	11	18	4	1¾	16	18	5	11
2	0		8½	7		2	5¾	12		4	3	17		6	0¼
2	6		9½	7	6	2	6¾	12	6	4	4	17	6	6	1¼
2	12		10½	7	12	2	7¾	12	12	4	5	17	12	6	2¼
2	18		11½	7	18	2	8¾	12	18	4	6	17	18	6	3¼
3	0	1	0¾	8	0	2	10	13		4	7¼	18		6	4½
3	6	1	1¾	8	6	2	11	13	6	4	8¼	18	6	6	5½
3	12	1	2¾	8	12	3	0	13	12	4	9¼	18	12	6	6½
3	18	1	3¾	8	18	3	1	13	18	4	10¼	18	18	6	7½
4	0	1	5	9	0	3	2¼	14		4	11½	19		6	8¾
4	6	1	6	9	6	3	3¼	14	6	5	0½	19	6	6	9¾
4	12	1	7	9	12	3	4¼	14	12	5	1½	19	12	6	10¾
4	18	1	8	9	18	3	5¼	14	18	5	2½	19	18	6	11¾
5	0	1	9¾	10		3	6½	15		5	3¾	103		7	1

What

Example 41. What is the value of a parting aſſay, reported Br. $\underset{\text{viij}}{\overset{\text{dwt}}{\cdots}}$ fine gold $\underset{\text{ij}}{\overset{\text{oz}}{\vdots}}$ $\underset{\text{xiij}}{\overset{\text{dwt}}{\cdots}}$ ſtandard ſilver being at 5s. 6d. and ſtandard gold at 3l. 18s. per ounce?

			s.	d.
To the value of ſtandard —			5	6
Add that of 8 dwt. —				2½
Value of the ſilver per oz. —			5	8½
Then for 5s. take 5d. and from table A, for the 8½d. take ¾d. makes 5¾d. for 1 oz. and for the 2 oz. it makes —	11½			
And from table B. againſt 13 dwt. and under *5¾d take —	3⅞			
—			1	3⅜
			4	5⅛
To which add from table C. for 2 oz. of fine gold 14s. 2d. and for 13 dwt. 4s. 7¼d. makes			18	9¼
Value of the aſſay per oz. —		1	3	2⅜

---

* The bare inſpection of the table will ſhew what to take out when theſe values happen to be ⅛, ⅜, ⅝, or ⅞, inſtead of ¼, ½, and ¾, which ſeldom make any difference, and never more than ½ a farthing per oz.

The Doctrine of Pars.

The par of money, or of exchange, is the equated nominal value, which any determinate weight of fine ſilver or fine gold, has given to it in two different nations or places.

The requiſite data to find which par, is the weight and fineneſs of the piece whoſe value is ſought, and the value of one ounce of ſtandard gold or ſilver; and as the price of ſtandard alters, ſo does the par with it.

By indenture between the King and the maſter of the mint, 62 ſhillings of ſtandard ſilver are to weigh 12 ounces, or one pound troy, and 5 ſhillings and two pence to weigh one ounce, and it appears from Examp. 31. that at this rate 1 oz. of fine ſilver is worth 5 s. 7 d. and that 1 lb. is 3 l. 7 s. and ſilver in coin has continued on this footing ever ſince the year 1601.

By indenture as before, 44 guineas and one half guinea are to weigh one pound troy, each of which paſſing at 21 ſhillings, makes the value of the pound weight 46 l. 14 s, 6 d. and the value of 1 ounce is 3l. 17s. 10s $\frac{1}{2}$d. the value of 1 ounce of fine gold is 4l. 5s. and the lb. wt. 50l. 19s. 5$\frac{5}{11}$d. and upon this footing our gold has been coined ever ſince the year 1718.

As

The value of ſtandard in bullion, or uncoined ſilver, is continually fluctuating, being ſometimes 5s. 3d. and at other times 5s. 9d. or more, but at preſent it is about 5s. 6d. which is nearly its value in the neighbouring kingdoms; the value of gold bullion is alſo ſubject to change, but not like the ſilver, and is generally about 3l. 18s. per ounce.

And as no foreign ſilver coin is ſuffered to be current in England, but is conſidered as bullion; therefore it is the price of bullion from which their par or value muſt be eſtimated, and not from that of the coin, and the caſe is the ſame alſo with foreign gold coin, except that of Portugal, which however only paſſes by courteſy, and not by law. ✓

The pars of imaginary money denominations, are drawn from thoſe of the real coins, and beſides the different values they will have when eſtimated from bullion or coin; they will likewiſe be different if drawn from gold money than if drawn from ſilver, having the greateſt value from the ſilver, if the proportion is higher, and the leaſt value if it is lower, then in that place with which it is compared.

The materials above are thoſe which compoſe the doctrine of exchange, and with which its very foundation is laid, yet are ſeldom ſo much as mentioned in the treatiſes we generally have on that ſubject, ſo that we can neither inveſtigate the pars, nor examine whether thoſe that are there given are true or falſe.

The ſame data are given, and the ſame things required in finding of the par, as are in CASE XXV. and the ſolution is the ſame, and may be performed by any of the methods made uſe of in the Examples under that Caſe, it being only a particular application of that caſe to money.

Example 42. What is the value of the Dutch Guilder, or its par in Engliſh money, it weighing 6 dwt. 18 gr. and is 11 oz. fine, or Wo. [illegible] ſtandard ſilver being 5s. 6½d. per oz.?

By the Table.

	s.	d.
From	5	6½
Take	0	0½
	5	6

	dwt. gr.		s.	d.	
Then	6 18	at	5	6	
	5 dwt.		1	4½	
	1 dwt. 6 gr.		0	4⅛	
	12 gr.		0	1½	
			1	10⅛	the par.

The par may likewiſe be found in the following manner, reduce the weight of the piece into grains, and the fineneſs of it into penny weights, multiply them together, and multiply that product by 623, and dot off the laſt 6 figures to the right hand, and then

then thoſe to the left hand of the dot are the par in pence, and if the next figures are .25 .5, or .75, it is ¼, ½, or 3 farthings more.

Thus in the laſt Examp. 6 dwt. 18 gr. is 162 gr. and 11 oz. is 220 dwt.

```
     220
   -----
    3240
   3240
   -----
   35640
     623
   -----
   10692
   7128
 21384
 -------
22.203720
```

and the anſwer is 22d or 1s. 10d.

The multiplicator or factor 623, will only be the true one when ſtandard is 5s. 6½d. per oz. and alters with the price of ſtandard, as appears by the following little table.

s.	d.	factors	s.	d.	factors
5	9	647	5	5	610
5	8½	643	5	4½	605
5	8	638	5	4	600
5	7½	633	5	3½	596
5	7	628	5	3	591
5	6½	623	5	2½	586
5	6	619	5	2	582
5	5½	614			

What

Example 43. What is par of the Spaniſh pillar piece of eight, weighing 17. dwt. 9 gr. or 418 gr. Wo. [illegible] or 217 dwt. fine, ſtandard ſilver being 5 s. 4 d per oz. ?

Multiply 418 by 217, the product is 90706, which multiplied by 600, the number againſt 5 s. 4 d. in the little table, and dotting off 6 figures, the ſum is 54.423600 pence, or 4s. 6⅜d. the value required.

Example 44. What is the value or par of the preſent French Louis d'or, weighing 5 dwt. 6 gr. and 22 carats fine, or ſtandard ?

	dwt.	gr.		l.	s.	d.	
	5	6	at	3	18		
5 dwt.				0	19	6	
6 gr.				0	1	0	nearly
				1	0	6	the par

This Louis d'or is current for 24 Livres, therefore 1 livre is worth about 10¼d, and the crown of exchange of 3 livres is worth 2s 6¾d.

What

Example 44: What is the value of a ducat, weighing 2 dwt. 6 gr. Br. $\overset{ca}{\text{i}}\ \overset{gr}{\text{iij}}$ ſtandard being 3 l. 18 s. per ounce?

	l.	s.	d.	
To	3	18	0	price of ſtandard
Add	0	6	$2\frac{3}{8}$	value of 1 car. 3 gr.
	4	4	$2\frac{3}{8}$	value of ducat gold per oz.
2 dwt.	0	8	5	
6 gr.	0	1	$0\frac{4}{8}$	
	0	9	$5\frac{4}{8}$	the par, or value of the ducat

The par in gold may likewiſe be found as it was in the ſilver by a common multiplicator, which when ſtandard is 3l. 18s. per oz. is .0885, by which if we multiply the product of the weight and fineneſs, and dot off 4 figures more to the right hand we ſhall have the value.

Thus in the laſt Example 54 gr. multiplied by 23¾ car. multiplied by .0885 is 113.501250, and dotting off the 6 laſt figures it is 113.501250 pence, or 9s. 5½d. for the value, of the ducat.

The Doctrine of Proportion between Silver and Gold.

By the term proportion, in treating of this ſubject, we underſtand the true value of fine gold; that is, how many pounds weight of fine ſilver is given in exchange for one pound weight of fine gold.

This true value of gold is found from the nominal values which one pound weight of fine ſilver, and one pound weight of fine gold, are coined into; the former of which we have juſt now ſeen is 67 ſhillings, or 3 l. 7 s. and the latter is 50 l. 19 s. $5\frac{1}{2}$d. and as many times as 3 l. 7 s. is contained in 50l. 19s. $5\frac{1}{2}$ ſo many pounds of fine ſilver are given for 1 lb. of fine gold, and conſtitute its true value, and is about $15\frac{1}{6}$ times its quantity of fine ſilver.

But when bullion is at 5s. 6d per oz. and gold as above, the proportion is found to be $14\frac{2}{7}$, and in general it will be found to be included between the numbers 14 and 15, amongſt moſt of the European Kingdoms and States, but oftner nearer to the firſt than the laſt of thoſe numbers, and few if any examples are to be met with at preſent of its being leſs than 14, or more than 15.

Example 45. There are 62 ſhillings coined out of 1 lb. troy of ſtandard ſilver, and 44½ guineas coined out of the ſame lb. of ſtandard gold, each current for 21 ſhillings; what is the proportion between ſilver and gold in this coinage?

```
     dwt.   s.    dwt.   s.
As 222 : 62 :: 240 : 67 1/37 value of 1 lb. of
fine ſilver.

     car. gu.     cr. gu.          s.
As 22 : 44 1/2 :: 24 : 48 6/11 each 21 value of 1 lb.
fine gold.
```

And $48\frac{6}{11}$ multiplied by 21 is $1019\frac{5}{11}$ value of ditto in ſhillings.

```
     s.          s.         lb.  lb.      [parts of 1 lb.
As 67 1/37 : 1019 5/11 :: 1 : 15 and 5718 in 27280
   37           11                      12
  ----         -----                  -----
   470         112 4          27280)68616(2 oz.
  201             37                 14056
  ----         ------                   20
  2480         78498                  -----
    11         33642          27280)281120(10 dwt.
 -----         -----                  8320
 27280                                  24
      27280)414918(15 lb.             -----
            14211             27280)199680(7 gr.
   remains   5718                     8720
```

And the proportion is 15 lb. 2 oz. 10 dwt. 7 gr.

Inſtead of working by vulgar fractions as above, if we work it by decimals it will be ſooner done.

67 $\frac{1}{37}$ is 67.027, and 1019$\frac{5}{11}$ is 1019.4545454.

```
                                        [10 dwt. 7 gr.
And 67027)1019.4545454(15.2096 or 15 lb. 2 oz.
              349184         12
               140495     -------
                644145    2.5152
                 409024       20
                   6862   -------
                          10.3040
                               24
                          -------
                           7.2960
```

In like manner the proportion kept at preſent in bullion, may be found the price of ſtandard ſilver being at 5s. 6d. and gold 3l. 18s. and is 14.2878, or 14 lb. 3 oz. 9 dwt. 1 gr.

There is alſo another data beſides that above to find the proportion, which is the weight, fineneſs and value of a piece of gold, or a piece of ſilver coin: inſtead of that of the pound weight.

Example 46. What is the proportion kept in our preſent coinage, a ſhilling weighing 92$\frac{28}{31}$ troy grains, and a guinea 129$\frac{39}{89}$, and being current for 21 ſhillings?

As

car. ca. gr. gr.
As 24 : 22 :: 129$\frac{39}{89}$: 118$\frac{58}{89}$ fine gold in a guinea.

oz. oz. gr. gr.
As 12 : 11$\frac{1}{10}$ :: 92$\frac{28}{31}$: 85$\frac{29}{31}$ fine ſilver in a ſhilling, which × by 21 is 1804$\frac{20}{31}$ fine ſilver in a guinea.

```
And  118 58/89 : 1804 20/31 :: 1 : 15  2  10  7
          89          31
       ------      ------
         1062        1804
         944       5412
           58          20
       ------      ------
        10560       55944
           31          89
       ------      ------
        10560      503496
       31680      447552
      -------     -------
      327360 )4979016(15 lb.
                1705416
                  68616
                     12
                -------
      327360)823392(2 oz.
               168672
                   20
               -------
      327360)3373440(10 dwt.
                99840
                   24
               -------
               399360
              199680
              --------
      327360)2396160(7 gr.
               104640
```

As

The ſame queſtion is worked by decimals, as follows.

129.438 wt. guinea   92.903 wt. of a ſhilling
22 fine of ditto   11.1 fineneſs of ditto

258876   92903
258876   92903
92903

12)2847 636
2)237.303   12)1031.2233
118.651 fine gold   85.9352 fi. ſil. in 1 ſhilling
in 1 guinea]   21 ſhil. in 1 guinea

85.9352
171 8704

118.6515)180.46392 (15.20958
6181242   12
2486670
11364000   2.51496
6853650   20
921075
10.29920
24
7.18

Although the work is more operoſe by vulgar than by decimal fractions, yet it has the advantage of being entirely correct, and at the ſame time the reaſons of the operation, and any error in the concluſion, is ſooner diſcovered this way than the other, which is the reaſon we have preferred it in our inveſtigation[*] of the value and proportion of our ſilver and gold coin for 6 or 700 years.

---

[*] See the tables to our view of the ſilver and gold coinage.

The

The two diviſions above by 24 and by 12 will be ſaved if we perform it by the following rule. 1ſt. multiply the weight of the ſilver piece of money by its fineneſs, and multiply the product by double the value of the gold piece, this laſt ſum divided by the product of the weight and fineneſs of the gold piece, gives the anſwer.

The product of the weight and fineneſs of the ſilver piece above, is 1031.2233
double value gold piece is 42

20624466
41248932

The product of the wt. and value of the gold piece 2847636)43311.3786(15.296

If the ſame fineneſs was kept both in the ſilver and gold coins, that is 11 oz. in the ſilver and 22 car. in the gold or 10½ oz. in the ſilver and 21 car. in the gold then the labour in finding the proportion would be much leſſened; for in that caſe we muſt firſt find how many of the ſilver paſſes for one of the gold, which being multiplied into the weight of the ſilver, and divided by the weight of the gold, will give us the proportion required.

Example 47. The Ecu in France weighs 19 dwt. or 456 gr. is current for 6 livres, and the louis d'or weighs 5 dwt. 6 gr. or 126 gr. for 24 livres, and are both the ſame fineneſs, what is the proportion.

li. gr.
6)24(4 456 wt. of the ecu
4 ecus in 1 louis d'or

wt. of louis d'or 126)1824($14\frac{1}{2}$ the proportion
564
60

Example 48. In Holland the piece of 3 guilders weighs 1 oz. 6 gr. or 486 gr. and the ryder or piece of 14 guilders weighs 6 dwt. 10 gr. or 154 gr. and are both of the ſame fineneſs, what is the proportion?

3)14($4\frac{2}{3}$ 486 weight of the 3 guilders
$4\frac{2}{3}$

1944
162
162

wt. of a rider 154) 2268($14\frac{8}{11}$ the proportion
728
112

Thoſe countries wherein they obſerve a higher proportion than their neighbours, are in danger of having their ſilver drawn from them in exchange for gold, as is the caſe at preſent with Great Britain, and thoſe which have a lower proportion the contrary.

TABLES

OF THE

QUANTITY

OF

Standard SILVER,

Contained in any Ingot under
the Weight of 500 Ounces;

AND

From one Ounce to one Half-
Pennyweight in Fineneſs.

	1 oz.			[illegible]			[illegible]		
oz.	oz.	dwt.	gr.	oz.	dwt	gr.	oz.	dwt	gr.
500	45	0	21⅜	43	18	9⅛	42	15	20½
400	36	0	17¼	35	2	16⅞	34	4	16⅜
300	27	0	13	26	7	0⅝	25	13	12⅜
200	18	0	8⅝	17	11	8½	17	2	8¼
100	9	0	4⅜	8	15	16¼	8	11	4⅛
90	8	2	3⅞	7	18	2⅝	7	14	1¼
80	7	4	3½	7	9	13	6	16	22½
70	6	6	3	6	2	23½	5	19	19⅝
60	5	8	2⅝	5	5	9¾	5	2	16⅞
50	4	10	2⅛	4	7	20⅛	4	5	14
40	3	12	1¾	3	10	6½	3	8	11¼
30	2	14	1¼	2	12	16⅞	2	11	8⅜
20	1	16	0⅞	1	16	3¼	1	14	5⅝
10	0	18	0⅜	0	17	13⅝	0	17	2¾
9	0	16	5⅛	0	15	19½	0	15	9¾
8	0	14	10	0	14	1¼	0	13	16⅝
7	0	12	14¾	0	12	7⅛	0	11	23⅜
6	0	10	19½	0	10	13	0	10	6½
5	0	9	0¼	0	8	18¾	0	8	13⅜
4	0	7	5	0	7	0⅝	0	6	20⅜
3	0	5	9¾	0	5	6½	0	5	3¼
2	0	3	14½	0	3	12⅜	0	3	10⅛
1 oz.	0	1	19¼	0	1	18⅛	0	1	17⅛
19	0	1	17⅛	0	1	16⅛	0	1	15⅛
17	0	1	12¾	0	1	11⅞	0	1	10⅞
13	0	1	4⅛	0	1	3⅜	0	1	2¾
11	0	0	23¾	0	0	23	0	0	22⅝
10	0	0	21⅝	0	0	21	0	0	20½
9	0	0	19½	0	0	19	0	0	18½
8	0	0	17¼	0	0	16⅞	0	0	16⅜
7	0	0	15⅛	0	0	14¾	0	0	14⅜
6	0	0	13	0	0	12⅝	0	0	12⅜
5	0	0	10¾	0	0	10½	0	0	10¼
4	0	0	8⅝	0	0	8⅜	0	0	8¼
3	0	0	6½	0	0	6⅜	0	0	6⅛
2	0	0	4⅜	0	0	4¼	0	0	4⅛
1 dwt.	0	0	2⅛	0	0	2⅛	0	0	2
½	0	0	1⅛	0	0	1	0	0	1

	[illegible]			[illegible]			[illegible]		
oz.	oz.	dwt	gr.	oz.	dwt	gr.	oz.	dwt	gr.
500	41	13	8	40	10	19½	39	8	6⅞
400	33	6	16	32	8	15⅝	31	10	15⅛
300	25	0	0	24	6	11⅜	23	12	23⅜
200	16	13	8	16	4	7¾	15	15	7⅝
100	8	6	16	8	2	3⅞	7	17	15¾
90	7	10	0	7	5	22¾	7	1	21⅜
80	6	13	8	6	9	17½	6	6	3
70	5	16	16	5	13	12⅜	5	10	8⅝
60	5	0	0	4	17	7⅛	4	14	14¼
50	4	3	8	4	1	2	3	18	19⅞
40	3	6	16	3	4	20¾	3	3	1½
30	2	10	0	2	8	15⅝	2	7	7⅛
20	1	13	8	1	12	10⅜	1	11	12¾
10	0	16	16	0	16	5⅛	0	15	18⅜
9	0	15	0	0	14	14¼	0	14	4½
8	0	13	8	0	12	23⅜	0	12	14⅝
7	0	11	16	0	11	8⅜	0	11	0¾
6	0	10	0	0	9	17½	0	9	11⅛
5	0	8	8	0	8	2⅝	0	7	21¼
4	0	6	16	0	6	11⅝	0	6	7⅜
3	0	5	0	0	4	20¾	0	4	17½
2	0	3	8	0	3	5⅞	0	3	3⅝
1 oz.	0	1	16	0	1	14⅞	0	1	13⅞
19	0	1	14	0	1	13	0	1	12
17	0	1	10	0	1	9⅛	0	1	8¼
13	0	1	2	0	1	1¼	0	1	0⅝
11	0	0	22	0	0	21⅜	0	0	20⅞
10	0	0	20	0	0	19½	0	0	18⅞
9	0	0	18	0	0	17½	0	0	17
8	0	0	16	0	0	15⅝	0	0	15⅛
7	0	0	14	0	0	13⅝	0	0	13¼
6	0	0	12	0	0	11⅝	0	0	11⅜
5	0	0	10	0	0	9¾	0	0	9½
4	0	0	8	0	0	7¾	0	0	7⅝
3	0	0	6	0	0	5⅞	0	0	5⅝
2	0	0	4	0	0	3⅞	0	0	3¾
1 dwt.	0	0	2	0	0	2	0	0	1⅞
½	0	0	1	0	0	1	0	0	1

	[illegible]			[illegible]			[illegible]		
oz.	oz.	dwt	gr.	oz.	dwt	gr.	oz.	dwt.	gr.
500	38	15	18⅜	37	3	5⅞	36	0	17⅜
400	30	12	14¾	29	14	14¼	28	16	13⅞
300	22	19	11	22	5	22¾	21	12	10⅜
200	15	6	7⅛	14	17	7⅛	14	8	7
100	7	13	3⅜	7	8	15⅜	7	4	3½
90	6	17	20⅛	6	13	18¾	6	9	17½
80	6	2	12½	5	18	22	5	15	7⅝
70	5	7	5	5	4	1¼	5	0	21⅝
60	4	11	21⅜	4	9	4½	4	6	11⅝
50	3	16	13⅞	3	14	7¾	3	12	1¾
40	3	1	6⅝	2	19	11	2	17	15¾
30	2	5	22¾	2	4	14¼	2	3	5⅞
20	1	10	15⅛	1	9	17½	1	8	19⅞
10	0	15	7⅝	0	13	20¾	0	14	10
9	0	13	18⅞	0	11	9⅝	0	12	23⅛
8	0	12	6	0	10	21⅜	0	11	12¾
7	0	10	17¼	0	8	9¼	0	10	2⅛
6	0	9	4½	0	7	22	0	8	15½
5	0	7	15¾	0	5	10⅜	0	7	5
4	0	6	3	0	4	22¾	0	5	18⅜
3	0	4	14¼	0	2	11	0	4	7¾
2	0	3	1½	0	1	23⅜	0	2	21⅜
1 oz.	0	1	12¾	0	1	11⅜	0	1	10⅝
19	0	1	10⅞	0	1	9¼	0	1	8⅞
17	0	1	7¼	0	0	5¾	0	1	5⅜
13	0	0	23⅞	0	0	22¾	0	0	22½
11	0	0	20¼	0	0	19¼	0	0	19⅛
10	0	0	18⅜	0	0	17½	0	0	17¼
9	0	0	16½	0	0	15¾	0	0	15⅝
8	0	0	14¾	0	0	14	0	0	13⅞
7	0	0	12⅞	0	0	12¼	0	0	12⅛
6	0	0	11	0	0	10½	0	0	10½
5	0	0	9¼	0	0	8¾	0	0	8⅞
4	0	0	7⅜	0	0	7	0	0	7
3	0	0	5½	0	0	5¼	0	0	5¼
2	0	0	3⅝	0	0	3½	0	0	3½
1 dwt.	0	0	1⅞	0	0	1¾	0	0	1⅜
½	0	0	1	0	0	0⅞	0	0	0⅞

	[illegible]				[illegible]				[illegible]		
oz.	oz.	dwt	gr.		oz.	dwt	gr.		oz.	dwt	gr.
500	34	18	4¾		33	15	16¼		32	13	3⅝
400	27	18	13⅜		27	0	13		26	2	12⅛
300	20	18	22		20	5	9¾		19	11	21⅜
200	13	19	6¾		13	10	6½		13	1	6¼
100	6	19	15⅜		6	15	3¼		6	10	15⅛
90	6	5	16		6	1	14⅞		5	17	18⅜
80	5	11	17⅛		5	8	2⅝		5	4	12
70	4	17	18		4	14	14¼		4	11	10⅝
60	4	3	18⅞		4	1	2		3	18	19
50	3	9	19⅝		3	7	13⅝		3	5	7⅝
40	2	15	20½		2	14	1¼		2	12	6
30	2	1	21⅜		2	0	13		1	19	4½
20	1	7	22¼		1	7	0⅝		1	6	3
10	0	13	23⅛		0	13	12⅜		0	13	1⅛
9	0	12	13⅝		0	12	3⅞		0	11	18⅛
8	0	11	4⅛		0	10	19⅜		0	10	5⅜
7	0	9	18½		0	9	11		0	8	22¾
6	0	8	9⅛		0	8	2½		0	7	16
5	0	6	23⅝		0	6	18⅛		0	6	9⅜
4	0	5	14		0	5	9¾		0	5	2¾
3	0	4	4⅝		0	4	1¼		0	3	20
2	0	2	19		0	2	16⅞		0	2	13⅜
1 oz.	0	1	9½		0	1	8⅜		0	1	6⅝
19	0	1	7⅞		0	1	6¾		0	1	5⅛
17	0	1	4½		0	1	3⅝		0	1	2⅛
13	0	0	21¼		0	0	21		0	0	19⅞
11	0	0	18⅜		0	0	17⅞		0	0	16⅞
10	0	0	16¾		0	0	1 ¼		0	0	15⅜
9	0	0	15⅛		0	0	14⅝		0	0	13⅞
8	0	0	13⅜		0	0	13		0	0	12¼
7	0	0	11¼		0	0	11⅜		0	0	10¾
6	0	0	10		0	0	9¼		0	0	9¼
5	0	0	8⅜		0	0	8⅛		0	0	7⅝
4	0	0	6¾		0	0	6½		0	0	6⅛
3	0	0	5		0	0	4⅞		0	0	4⅝
2	0	0	3⅜		0	0	3¼		0	0	3⅛
1 dwt.	0	0	1⅝		0	0	1⅝		0	0	1½
½	0	0	0⅞		0	0	0⅞		0	0	0¾

	Tiiij dNb.			Tiij dNb ob.			Tiij dNb.		
oz.	oz.	dwt	gr.	oz.	dwt	gr.	oz.	dwt	gr.
500	31	10	15¼	30	8	2⅝	29	5	14
400	25	4	12⅛	24	6	11⅝	23	8	4¾
300	18	18	9⅛	18	4	20¾	17	11	8½
200	12	12	6	12	3	5⅞	11	14	5⅝
100	6	6	3	6	1	14⅞	5	17	2⅞
90	5	13	12⅜	5	9	11	5	5	9¾
80	5	0	21⅝	4	17	7⅞	4	13	16⅝
70	4	8	6⅞	4	5	3⅝	4	1	23⅝
60	3	15	16¼	3	12	23⅜	3	10	6½
50	3	3	1½	3	0	19½	2	18	13⅜
40	2	10	10⅜	2	8	16	2	6	20⅜
30	1	17	20⅛	1	16	11⅝	1	15	3¼
20	1	5	5⅜	1	4	8	1	3	10⅛
10	0	12	14¾	0	12	4	0	11	17⅛
9	0	11	8½	0	10	20½	0	10	13
8	0	10	2⅛	0	9	15⅝	0	9	8⅞
7	0	8	19⅞	0	8	10⅝	0	8	4¾
6	0	7	13⅝	0	7	7⅜	0	7	0⅝
5	0	6	7⅜	0	6	2	0	5	20½
4	0	5	1⅛	0	4	20¾	0	4	16⅜
3	0	3	18⅞	0	3	15⅝	0	3	12⅛
2	0	2	12½	0	2	10⅜	0	2	8¼
1 oz.	0	1	6¼	0	1	5¼	0	1	4⅛
19	0	1	4¾	0	1	3½	0	1	2¾
17	0	1	1¾	0	1	0⅞	0	0	23⅞
13	0	0	19⅝	0	0	18¾	0	0	18¼
11	0	0	16⅝	0	0	15⅞	0	0	15½
10	0	0	15⅛	0	0	14½	0	0	14
9	0	0	13⅝	0	0	13	0	0	12⅝
8	0	0	12⅛	0	0	11⅝	0	0	11¼
7	0	0	10⅝	0	0	10⅛	0	0	9⅜
6	0	0	9⅛	0	0	8¾	0	0	8⅜
5	0	0	7⅝	0	0	7¼	0	0	7
4	0	0	6	0	0	5¾	0	0	5⅝
3	0	0	4½	0	0	4⅜	0	0	4¼
2	0	0	3	0	0	2⅞	0	0	2¾
1 dwt.	0	0	1½	0	0	1½	0	0	1⅜
½	0	0	0¾	0	0	0¾	0	0	0¾

	[illegible]			[illegible]			[illegible]		
oz.	oz.	dwt.	gr.	oz.	dwt	gr.	oz.	dwt	gr.
500	28	3	1½	27	0	13	25	18	0⅜
400	22	10	10¾	21	12	10⅜	20	14	10
300	16	17	20⅛	16	4	7¾	15	10	19½
200	11	5	5⅜	10	16	5¼	10	7	5
100	5	12	14¾	5	8	2⅝	5	3	14½
90	5	1	8½	4	17	7⅛	4	13	5⅞
80	4	10	2⅛	4	6	11⅝	4	2	21¼
70	3	18	20	3	15	16¼	3	12	12½
60	3	7	13⅞	3	4	20¾	3	2	3⅞
50	2	16	7⅜	2	14	1¼	2	11	19¼
40	2	5	1⅛	2	3	5⅞	2	1	10⅝
30	1	13	18⅞	1	12	10⅜	1	11	2
20	1	2	12½	1	1	14⅞	1	0	17¼
10	0	11	6¼	0	10	19½	0	10	8⅝
9	0	10	3¼	0	9	17½	0	9	7¾
8	0	9	0¼	0	8	15⅝	0	8	6⅞
7	0	7	21⅛	0	7	13⅝	0	7	6
6	0	6	18⅛	0	6	11⅝	0	6	5¼
5	0	5	15⅛	0	5	9¾	0	5	4⅜
4	0	4	12⅛	0	4	7¾	0	4	3½
3	0	3	9⅛	0	3	5⅞	0	3	2⅝
2	0	2	6	0	2	3⅞	0	2	1¾
1 oz,	0	1	3	0	1	2	0	1	0⅞
19	0	1	1⅝	0	1	0⅝	0	0	23⅝
17	0	0	23	0	0	22	0	0	21⅛
13	0	0	17⅝	0	0	16⅞	0	0	16⅛
11	0	0	14⅞	0	0	14¼	0	0	13⅝
10	0	0	13½	0	0	13	0	0	12⅝
9	0	0	12⅛	0	0	11⅝	0	0	11¼
8	0	0	10¾	0	0	10⅜	0	0	10
7	0	0	9½	0	0	9⅛	0	0	8¾
6	0	0	8⅛	0	0	7¾	0	0	7½
5	0	0	6¾	0	0	6½	0	0	6¼
4	0	0	5⅜	0	0	5¼	0	0	5
3	0	0	4	0	0	3⅞	0	0	3¾
2	0	0	2¾	0	0	2⅝	0	0	2½
1 dwt.	0	0	1⅜	0	0	1¼	0	0	1¼
½ --	0	0	0¾	0	0	0⅝	0	0	0⅝

	[illegible]			[illegible]			[illegible]		
oz.	oz.	dwt	gr.	oz.	dwt	gr.	oz.	dwt	gr.
500	24	15	11⅞	23	12	23⅛	22	10	10¾
400	19	16	9½	18	18	9⅛	18	0	8⅝
300	14	17	7⅛	14	3	18¾	13	10	6½
200	9	18	4¾	9	9	4½	9	0	4⅜
100	4	19	2⅜	4	14	14¼	4	10	2⅛
90	4	9	4½	4	4	3¼	4	1	2
80	3	19	6¾	3	15	16¼	3	12	1¾
70	3	9	8⅞	3	5	5¼	3	3	1½
60	2	19	11	2	16	18⅛	2	14	1¼
50	2	9	13¾	2	7	7⅛	2	5	1⅛
40	1	19	15⅜	1	17	20⅛	1	16	0⅞
30	1	9	17½	1	8	9⅛	1	7	0⅝
20	0	19	19⅝	0	18	22	0	18	0⅜
10	0	9	21⅞	0	9	11	0	9	0¼
9	0	8	22	0	8	12⅜	0	8	2⅝
8	0	7	22¼	0	7	13⅝	0	7	5
7	0	6	22½	0	6	14⅞	0	6	7⅜
6	0	5	22⅝	0	5	16¼	0	5	9¾
5	0	4	22⅞	0	4	17½	0	4	12⅛
4	0	3	23⅛	0	3	18¾	0	3	14½
3	0	2	23⅜	0	2	20⅛	0	2	16⅞
2	0	1	23⅝	0	1	21⅜	0	1	19¼
1 oz.	0	0	23⅞	0	0	22¾	0	0	21⅝
19	0	0	22¾	0	0	21⅝	0	0	20⅜
17	0	0	20¼	0	0	19¾	0	0	18⅜
13	0	0	15⅜	0	0	14¾	0	0	14
11	0	0	13⅛	0	0	12½	0	0	11⅞
10	0	0	11⅞	0	0	11⅜	0	0	10¾
9	0	0	10⅞	0	0	10¼	0	0	9¾
8	0	0	9½	0	0	9⅛	0	0	8⅝
7	0	0	8¼	0	0	8	0	0	7⅝
6	0	0	7⅛	0	0	6¾	0	0	6½
5	0	0	6	0	0	5⅝	0	0	5⅜
4	0	0	4¾	0	0	4⅛	0	0	4⅛
3	0	0	3⅝	0	0	3⅜	0	0	3¼
2	0	0	2⅜	0	0	2¼	0	0	2⅛
1 dwt.	0	0	1¼	0	0	1⅛	0	0	1⅛
½	0	c	0⅝	0	0	0⅝	0	0	0⅝

	1C ∂ ℔ ℥.			1C ∂ ℔.			[8111] ∂ ℔ ℥.		
oz.	oz.	dwt	gr.	oz.	dwt	g	oz.	dwt	gr.
500	21	7	22¼	20	5	9¾	19	2	21⅜
400	17	2	8¼	16	4	7¼	15	6	7⅜
300	12	16	18⅛	12	3	5⅞	11	9	17⅝
200	8	11	4¼	8	2	3⅞	7	13	3¾
100	4	5	14	4	1	2	3	16	13⅞
90	3	17	0⅝	3	12	23⅜	3	8	22
80	3	8	11¼	3	4	20¾	3	1	6⅛
70	2	19	21⅞	2	16	18⅛	2	13	14½
60	2	11	8⅜	2	8	15⅝	2	5	22¾
50	2	2	19	2	0	13	1	18	6⅞
40	1	14	5⅝	1	12	10⅜	1	10	15⅛
30	1	5	16¼	1	4	7¾	1	2	23⅜
20	0	17	2¾	0	16	5¼	0	15	7⅝
10	0	8	13⅜	0	8	2⅝	0	7	15¾
9	0	7	16⅞	0	7	7⅛	0	6	21⅜
8	0	6	20⅜	0	6	11⅝	0	6	3
7	0	5	23¾	0	5	16¼	0	5	8⅝
6	0	5	3¼	0	4	20¾	0	4	14¼
5	0	4	6¾	0	4	1¼	0	3	19⅞
4	0	3	10⅛	0	3	5⅞	0	3	1½
3	0	2	13⅝	0	2	10⅜	0	2	7⅛
2	0	1	17⅛	0	1	14⅞	0	1	12¾
1 oz.	0	0	20½	0	0	19½	0	0	18⅜
19	0	0	19½	0	0	18½	0	0	17½
17	0	0	17½	0	0	16½	0	0	15⅝
13	0	0	13⅜	0	0	12⅝	0	0	12
11	0	0	11¼	0	0	10¼	0	0	10⅛
10	0	0	10¼	0	0	9¾	0	0	9¼
9	0	0	9¼	0	0	8¾	0	0	8¼
8	0	0	8¼	0	0	7¾	0	0	7⅜
7	0	0	7¼	0	0	6¾	0	0	6⅜
6	0	0	6⅛	0	0	5⅞	0	0	5½
5	0	0	5⅛	0	0	4⅞	0	0	4⅝
4	0	0	4⅛	0	0	3⅞	0	0	3⅝
3	0	0	3⅛	0	0	2⅞	0	0	2¾
2	0	0	2	0	0	2	0	0	1⅞
1 dwt.	0	0	1	0	0	1	0	0	0⅞
½	0	0	½	0	0	½	0	0	0½

	[illegible]			[illegible]			[illegible]		
oz.	oz.	dwt	gr.	oz.	dwt	gr.	oz.	dwt	gr.
500	18	0	8⅝	16	17	20⅛	15	15	7⅝
400	14	8	6⅞	13	10	6½	12	12	6
300	10	16	5¼	10	2	16⅞	9	9	4½
200	7	4	3½	6	15	3¼	6	6	3
100	3	12	1¾	3	7	13¼	3	3	1½
90	3	4	20½	3	0	19½	2	16	18⅛
80	2	17	15¼	2	14	1¼	2	10	10¾
70	2	10	10¾	2	7	7⅛	2	4	3½
60	2	3	5⅞	2	0	13	1	17	20⅛
50	1	16	0⅞	1	13	18⅞	1	11	12¾
40	1	8	19⅞	1	7	0⅝	1	5	5⅜
30	1	1	14½	1	0	6½	0	18	22
20	0	14	9⅞	0	13	12⅜	0	12	14¾
10	0	7	5	0	6	18⅛	0	6	7⅜
9	0	6	11⅝	0	6	2	0	5	16¼
8	0	5	18⅜	0	5	9¾	0	5	1⅛
7	0	5	1⅛	0	4	17½	0	4	10
6	0	4	7¾	0	4	1¼	0	3	18¾
5	0	3	14½	0	3	9⅛	0	3	3⅝
4	0	2	21⅛	0	2	16⅞	0	2	12½
3	0	2	3⅞	0	2	0⅝	0	1	21⅜
2	0	1	10⅝	0	1	8⅝	0	1	6¼
1 oz.	0	0	17¼	0	0	16¼	0	0	15⅛
19	0	0	16⅜	0	0	15⅜	0	0	14⅜
17	0	0	14⅞	0	0	13⅞	0	0	12⅞
13	0	0	11¼	0	0	10½	0	0	9⅝
11	0	0	9½	0	0	8⅞	0	0	8⅜
10	0	0	8⅝	0	0	8⅛	0	0	7⅝
9	0	0	7¾	0	0	7¼	0	0	6¾
8	0	0	6⅞	0	0	6½	0	0	6
7	0	0	6	0	0	5⅝	0	0	5¼
6	0	0	5⅛	0	0	4⅞	0	0	4½
5	0	0	4⅜	0	0	4	0	0	3¾
4	0	0	3½	0	0	3¼	0	0	3
3	0	0	2⅝	0	0	2⅜	0	0	2¼
2	0	0	1¾	0	0	1⅝	0	0	1½
1 dwt.	0	0	0⅞	0	0	0¾	0	0	0¾
½	0	0	0⅜	0	0	0⅜	0	0	0⅜

	[illegible]			[illegible]			[illegible]		
oz.	oz.	dwt	gr.	oz.	dwt	gr.	oz.	dwt	gr.
500	14	12	19	13	10	6	12	7	18
400	11	14	5 5/8	10	16	5 1/4	9	18	4 3/4
300	8	15	16 1/4	8	2	3 7/8	7	8	15 5/8
200	5	17	27 7/8	5	8	2 5/8	4	19	2 3/8
100	2	18	13 3/8	2	14	1 1/4	2	9	13 1/4
90	2	12	16 7/8	2	8	15 1/2	1	4	14 1/4
80	2	6	20 3/8	2	3	5 7/8	1	19	15 3/8
70	2	0	23 3/4	1	17	20	1	14	16 3/8
60	1	15	3 1/4	1	12	10 3/8	1	9	17 1/2
50	1	9	6 8/4	1	7	0 5/8	1	4	18 5/8
40	1	3	10 1/8	1	1	14 7/8	0	19	19 3/8
30	0	17	13 5/8	0	16	5 1/8	0	14	20 3/4
20	0	11	17 4/8	0	10	19 1/2	0	9	21 7/8
10	0	5	20 1/2	0	5	9 3/4	0	4	22 7/8
9	0	5	6 1/2	0	4	20 3/4	0	4	11
8	0	4	16 3/8	0	4	7 3/4	0	3	23 1/8
7	0	4	2 3/8	0	3	18 7/8	0	3	11 1/4
6	0	3	12 3/8	0	3	5 7/8	0	2	23 3/8
5	0	2	22 1/4	0	2	16 7/8	0	2	11 1/2
4	0	2	8 1/4	0	2	3 7/8	0	1	23 5/8
3	0	1	18 1/8	0	1	14 7/8	0	1	11 5/8
2	0	1	4 1/8	0	1	2	0	0	23 3/4
1 oz.	0	0	14	0	0	13	0	0	11 7/8
19	0	0	13 3/8	0	0	12 3/8	0	0	11 1/4
17	0	0	12	0	0	11	0	0	10
13	0	0	9 1/8	0	0	8 3/8	0	0	7 3/4
11	0	0	7 3/8	0	0	7 1/8	0	0	6 1/2
10	0	0	7	0	0	6 1/2	0	0	6
9	0	0	6 3/8	0	0	5 7/8	0	0	5 3/8
8	0	0	5 5/8	0	0	5 1/4	0	0	4 3/4
7	0	0	4 7/8	0	0	4 1/2	0	0	4 1/8
6	0	0	4 1/4	0	0	3 7/8	0	0	3 5/8
5	0	0	3 1/2	0	0	3 1/4	0	0	3
4	0	0	2 3/4	0	0	2 5/8	0	0	2 3/8
3	0	0	2 1/8	0	0	2	0	0	1 3/4
2	0	0	1 3/8	0	0	1 1/4	0	0	1 1/4
1 dwt.	0	0	0 3/4	0	0	0 5/8	0	0	0 5/8
1/2	0	0	0 3/8	0	0	0 3/8	0	0	0 1/4

	[illegible]			[illegible]			[illegible]		
oz.	oz.	dwt	gr.	oz.	dwt	gr.	oz.	dwt	gr.
500	11	5	$5\frac{3}{8}$	10	2	$16\frac{7}{8}$	9	0	$4\frac{5}{8}$
400	9	0	$4\frac{3}{8}$	8	2	$3\frac{7}{8}$	7	4	$3\frac{1}{2}$
300	6	15	$3\frac{1}{4}$	6	1	$14\frac{7}{8}$	5	8	$2\frac{5}{8}$
200	4	10	$2\frac{1}{8}$	4	1	2	3	12	$1\frac{3}{4}$
100	2	5	$1\frac{1}{8}$	2	0	13	1	16	$0\frac{7}{8}$
90	2	0	13	1	16	$11\frac{5}{8}$	1	12	$10\frac{3}{8}$
80	1	16	$0\frac{7}{8}$	1	12	$10\frac{3}{8}$	1	8	$19\frac{7}{8}$
70	1	11	$12\frac{3}{4}$	1	8	$9\frac{1}{8}$	1	5	$5\frac{3}{8}$
60	1	7	$0\frac{5}{8}$	1	4	$7\frac{3}{4}$	1	1	$14\frac{7}{8}$
50	1	2	$12\frac{1}{2}$	1	0	$6\frac{1}{2}$	0	18	$0\frac{3}{8}$
40	0	18	$0\frac{3}{8}$	0	16	$5\frac{1}{4}$	0	14	10
30	0	13	$12\frac{3}{8}$	0	12	$3\frac{7}{8}$	0	10	$19\frac{1}{2}$
20	0	9	$0\frac{1}{4}$	0	8	$2\frac{5}{8}$	0	7	5
10	0	4	$12\frac{1}{8}$	0	4	$1\frac{1}{4}$	0	3	$14\frac{1}{2}$
9	0	4	$1\frac{1}{4}$	0	3	$15\frac{1}{2}$	0	3	$5\frac{7}{8}$
8	0	3	$14\frac{1}{2}$	0	3	$5\frac{7}{8}$	0	2	$21\frac{1}{8}$
7	0	3	$3\frac{5}{8}$	0	2	$20\frac{1}{8}$	0	2	$12\frac{1}{2}$
6	0	2	$16\frac{7}{8}$	0	2	$10\frac{3}{8}$	0	2	$3\frac{7}{8}$
5	0	2	6	0	2	$0\frac{5}{8}$	0	1	$19\frac{1}{4}$
4	0	1	$19\frac{1}{4}$	0	1	$14\frac{7}{8}$	0	1	$10\frac{5}{8}$
3	0	1	$8\frac{3}{8}$	0	1	$5\frac{1}{8}$	0	1	2
2	0	0	$21\frac{5}{8}$	0	0	$19\frac{1}{2}$	0	0	$17\frac{1}{4}$
1 oz.	0	0	$10\frac{3}{4}$	0	0	$9\frac{3}{4}$	0	0	$8\frac{5}{8}$
19	0	0	$10\frac{1}{4}$	0	0	$9\frac{1}{4}$	0	0	$8\frac{1}{4}$
17	0	0	$9\frac{1}{8}$	0	0	$8\frac{1}{4}$	0	0	$7\frac{3}{8}$
13	0	0	7	0	0	$6\frac{3}{8}$	0	0	$5\frac{5}{8}$
11	0	0	6	0	0	$5\frac{3}{8}$	0	0	$4\frac{3}{4}$
10	0	0	$5\frac{3}{8}$	0	0	$4\frac{7}{8}$	0	0	$4\frac{3}{8}$
9	0	0	$4\frac{7}{8}$	0	0	$4\frac{3}{8}$	0	0	$3\frac{7}{8}$
8	0	0	$4\frac{3}{8}$	0	0	$3\frac{7}{8}$	0	0	$3\frac{1}{2}$
7	0	0	$3\frac{3}{4}$	0	0	$3\frac{3}{8}$	0	0	3
6	0	0	$3\frac{1}{4}$	0	0	$2\frac{7}{8}$	0	0	$2\frac{5}{8}$
5	0	0	$2\frac{3}{4}$	0	0	$2\frac{3}{8}$	0	0	$2\frac{1}{8}$
4	0	0	$2\frac{1}{8}$	0	0	2	0	0	$1\frac{3}{4}$
3	0	0	$1\frac{5}{8}$	0	0	$1\frac{1}{2}$	0	0	$1\frac{1}{4}$
2	0	0	$1\frac{1}{8}$	0	0	1	0	0	$0\frac{7}{8}$
1 dwt.	0	0	$0\frac{1}{2}$	0	0	$0\frac{1}{2}$	0	0	$0\frac{5}{8}$
$\frac{1}{2}$	0	0	$0\frac{1}{4}$	0	0	$0\frac{1}{4}$	0	0	$0\frac{1}{4}$

	iij ∂ Ns ob.			iij ∂ Ns.			ij ∂ Ns ob.		
oz.	oz.	dwt	gr.	oz.	dwt	gr.	oz.	dwt	gr.
500	7	17	15¾	6	15	3¼	5	12	14¾
400	6	6	3	5	8	2⅝	4	10	2¼
300	4	14	14¼	4	1	2	3	7	13⅝
200	3	3	1½	2	14	1¼	2	5	1⅛
100	1	11	12¾	1	7	0⅝	1	2	12⅛
90	1	8	9⅛	1	4	7⅛	1	0	6⅝
80	1	5	5⅜	1	1	14⅞	0	18	0⅝
70	1	2	1¾	0	18	22	0	15	18½
60	0	18	22	0	16	5¼	0	13	12⅜
50	0	15	18⅜	0	13	12⅜	0	11	6¼
40	0	12	14¾	0	10	19½	0	9	0¼
30	0	9	11	0	8	2⅝	0	6	18⅛
20	0	6	7⅜	0	5	9¾	0	4	12⅛
10	0	3	3⅝	0	2	16⅞	0	2	6⅛
9	0	2	20⅛	0	2	10⅜	0	2	0⅝
8	0	2	12½	0	2	3⅞	0	1	19¼
7	0	2	5	0	1	21⅜	0	1	13⅞
6	0	1	21⅜	0	1	14⅞	0	1	8½
5	0	1	13⅞	0	1	8⅜	0	1	3
4	0	1	6¼	0	1	2	0	0	21⅝
3	0	0	22¾	0	0	19½	0	0	16¼
2	0	0	15⅛	0	0	13	0	0	10⅞
1 oz.	0	0	7⅝	0	0	6½	0	0	5⅜
19	0	0	7¼	0	0	6⅛	0	0	5⅛
17	0	0	6⅜	0	0	5½	0	0	4⅝
13	0	0	4⅞	0	0	4¼	0	0	3½
11	0	0	4⅛	0	0	3⅝	0	0	3
10	0	0	3⅞	0	0	3¼	0	0	2¾
9	0	0	3⅜	0	0	2⅞	0	0	2⅝
8	0	0	3	0	0	2⅝	0	0	2⅛
7	0	0	2⅝	0	0	2¼	0	0	1⅞
6	0	0	2¼	0	0	2	0	0	1⅝
5	0	0	1⅞	0	0	1⅝	0	0	1⅜
4	0	0	1½	0	0	1¼	0	0	1⅛
3	0	0	1⅛	0	0	1	0	0	0¾
2	0	0	0¾	0	0	0⅝	0	0	0½
1 dwt.	0	0	0⅝	0	0	0⅜	0	0	0¼
½	0	0	0¼	0	0	0⅛	0	0	0⅛

	ij dwts			j dwt ss.			j dwt.		
oz.	oz.	dwt	gr.	oz.	dwt	gr.	oz.	dwt	gr.
500	4	10	2⅛	3	7	13⅝	2	5	1⅛
400	3	12	1¾	2	14	1¼	1	16	0⅞
300	2	14	1¼	2	0	13	1	7	0⅝
200	1	16	0⅞	1	7	0⅝	0	18	0⅜
100	0	18	0⅜	0	13	12⅜	0	9	0¼
90	0	16	5⅛	0	12	3⅞	0	8	0¼
80	0	14	9⅞	0	10	19½	0	7	5
70	0	12	14⅝	0	9	11	0	6	5
60	0	0	19½	0	8	2⅝	0	5	4⅞
50	0	9	0¼	0	6	18⅛	0	4	12⅛
40	0	7	4⅞	0	5	9¾	0	3	14½
30	0	5	9¾	0	4	1¼	0	2	14½
20	0	3	14½	0	2	16⅞	0	1	19¼
10	0	1	19¼	0	1	8⅜	0	0	21⅝
9	0	1	14⅞	0	1	5¼	0	0	19½
8	0	1	10⅝	0	1	2	0	0	17¼
7	0	1	6¼	0	0	22¾	0	0	15⅛
6	0	1	1⅞	0	0	19½	0	0	13
5	0	0	21⅝	0	0	16¼	0	0	10¾
4	0	0	7¼	0	0	13	0	0	8⅝
3	0	0	13	0	0	9¾	0	0	6½
2	0	0	8⅝	0	0	6½	0	0	4⅜
1 oz.	0	0	4⅜	0	0	3¼	0	0	2⅛
19	0	0	4⅛	0	0	3⅛	0	0	2
17	0	0	3⅝	0	0	2¾	0	0	1⅞
13	0	0	2¾	0	0	2⅛	0	0	1⅜
11	0	0	2⅜	0	0	1¾	0	0	1¼
10	0	0	2⅛	0	0	1⅝	0	0	1⅛
9	0	0	2	0	0	1½	0	0	1
8	0	0	1¾	0	0	1¼	0	0	0⅞
7	0	0	1⅛	0	0	1⅛	0	0	0¾
6	0	0	1¼	0	0	1	0	0	0⅝
5	0	0	1⅛	0	0	0¾	0	0	0½
4	0	0	0⅞	0	0	0⅝	0	0	0⅜
3	0	0	0⅝	0	0	0½	0	0	0⅜
2	0	0	0⅜	0	0	0⅜	0	0	0¼
1 dwt.	0	0	0¼	0	0	0⅛	0	0	0⅛
½	0	0	0⅛	0	0	0⅛	0	0	0

ob				oz	dwts	multiply	oz	dwts	multiply
oz.	oz	dt.	gr.	j	ij ob	7½ by 3	iij	vj	11 by 6
500	1	2	12½	j	ij ob	2½ by 9	iij	vj ob	9½ by 7
400	0	18	0⅜	j	iiii ob	3½ by 7	iij	vij ob	13½ by 5
300	0	13	12⅜	j	v ob	8½ by 3	iij	viij	17 by 4
200	0	9	0¼	j	vij ob	5½ by 5	iij	ix	11½ by 6
100	0	4	12⅛	j	viij ob	9½ by 3	iij	x	10 by 7
90	0	4	1¼	j	xj ob	10½ by 3	iij	xij	12 by 6
80	0	3	14½	j	xij ob	6½ by 5	iij	xij ob	14½ by 5
70	0	3	3⅝	j	xiiij ob	11½ by 3	iij	xiiij	18½ by 4
60	0	2	16⅞	j	xvij ob	12½ by 3	iij	xv	15 by 5
50	0	2	6	ij	ob	13½ by 3	iij	xvj	19 by 4
40	0	1	19¼	ij	ij	10½ by 4	iij	xvj ob	8½ by 9
30	0	1	8⅜	ij	ij ob	8½ by 5	iij	xvij	11 by 7
20	0	0	21⅝	ij	iij ob	14½ by 3	iij	xvij ob	15½ by 5
10	0	0	10¾	ij	iiij	11 by 4	iij	xviij	19½ by 4
9	0	0	9¾	ij	v	11 by 5	iiij	j	9 by 9
8	0	0	8⅝	ij	v ob	6½ by 7	iiij	ij ob	16½ by 5
7	0	0	7⅝	ij	vj ob	15½ by 3	iiij	iij	12 by 7
6	0	0	6½	ij	vij ob	9½ by 5	iiij	v	17 by 5
5	0	0	5⅜	ij	viij	12 by 4	iiij	v ob	9½ by 9
4	0	0	4⅜	ij	ix	7 by 7	iiij	vij ob	12½ by 7
3	0	0	3¼	ij	ix ob	16½ by 3	iiij	viij	11 by 8
2	0	0	2⅛	ij	x	12½ by 4	iiij	x	18 by 5
1 oz.	0	0	1	ij	xj	17 by 3	iiij	xj	13 by 7
19	0	0	0⅞	ij	xij ob	17½ by 3	iiij	xij	11½ by 8
17	0	0	0⅞	ij	xiiij	18 by 3	iiij	xij ob	18½ by 5
13	0	0	0⅝	ij	xv	11 by 5	iiij	xiiij ob	13½ by 7
11	0	0	0½	ij	xv ob	18½ by 3	iiij	xv	19 by 5
10	0	0	0½	ij	xvj	14 by 4	iiij	xvij ob	19½ by 5
9	0	0	0½	ij	xvij	19 by 3	iiij	xviij	14 by 7
8	0	0	0⅜	ij	xviij	14½ by 4	iiij	xix	11 by 9
7	0	0	0⅜	ij	xviij ob	19½ by 3	v	ij	17 by 6
6	0	0	0¼	ij	xix ob	8½ by 7	v	iij ob	11½ by 9
5	0	0	0¼	iij	ij	15½ by 4	v	iiij	13 by 8
4	0	0	0¼	iij	ij ob	12½ by 5	v	v	17½ by 6
3	0	0	0⅛	iij	iij	9 by 7	v	viij	18 by 6
2	0	0	0⅛	iij	iiij	16 by 4	v	viij ob	18½ by 7
1 dt.	0	0	0	iij	v	13 by 5	v	xj	18½ by 6
½	0	0	0						

Uſe of the SILVER TABLES.

The fineneſs from one ounce to an half penny weight ſtands at the top of the page, and the weight from 500 oz. to half a pennyweight on the ſide; and where they meet is found the quantity of ſtandard; as for example, againſt 400 oz. and under 14 dwt. is found 25 oz. 4 dwt. 12⅛ gr. and againſt 70 oz. and under 10½ dwt. ſtands 3 oz. 5 dwt 5¼ gr.

The ſtandard contained in any other fineneſs between 1 oz. and 2 oz. (except odd ½ dwts.) is found by doubling thoſe in the table between 10½ dwt. and 19½ dwt.. thus the ſtandard in 90 oz. of 1 oz. 19 dwt. fine, is found to be 15 oz. 16dwt. 5¼gr. by doubling that under 19½ dwt. and that in 90 oz. of 1 oz. 1 dwt. is 8 oz. 8 dwt. 6½ gr. by doubling 10½ dwt. we have likewiſe added two columns at the end of the tables, of the ſtandard of ſeveral fineneſſes which are to be found by multiplying thoſe in the table by 3, 4, 5, &c. as 1 oz. 2½ dwt. is had by multiplying 7½dwt. by 3, and 2 oz. 17 dwt. is found to be produced from 3 times 19 dwt. and ſo of the others.

But the ſtandard contained in any ingot, of any fineneſs, may be found from that of 1 oz. viz. by multiplying it by the number of oz. for the ounces, and dividing it by the aliquot parts of an ounce for the dwts. thus in 300 oz. of 3 oz. 12½ dwt.

there is 97 oz. 19 dwt. 11⅛ gr. of ſtandard, and in 80 oz. of 4 oz. 17 dwt. fine there is 34 oz. 19 dwt. 2¾ gr. as follows

	oz.	dwt.	gr.		oz.	dwt.	gr.
	27	0	13		7	4	3½
			3				4
3 oz.	81	1	15	4 oz.	28	16	14
10 dwt.	13	10	6½	10 dwt.	3	12	1¾
2½ dwt.	3	7	13⅝	5 dwt.	1	16	0⅞
				2 dwt.		14	10
	97	19	11⅛		34	19	2⅝

The examples above are from weights found in the table, but thoſe which are not in the table, if under 600 oz. may be collected out of it; thus, thoſe of 598 oz. 13 dwt. of 11¼ dwt. fine, and 183 oz. 2 dwt. of 7½ fine, are as follows:

	oz.	dwt.	gr.			oz.	dwt.	gr.	
500 oz.	29	5	14		100 oz.	3	7	13¼	
90 oz.	5	5	9¾		80 oz.	2	14	1¼	
8 oz.	0	9	8⅞		3 oz.	0	2	0⅝	
13 dwt.	0	0	18¼		2 dwt.	0	0	1⅝	
	35	1	2⅞	ſtandard		6	3	16¾	ſtan.

If the fineneſs is between 1 oz. and 2 oz. collect the weight from half the fineneſs, and then double it, as if it is 1 oz. 11 dwt. collect it from 15½ dwt. if 1 oz. 16 dwt. from 18½ dwt. and for any of thoſe in the two laſt columns, it muſt be from the fineneſs againſt it, and then multiplied by the number againſt it, as 2 oz. 9 dwt. from

7 dwt. and then multiplied by 7, and that of 4 oz. 5 dwt. from 17 dwt. and then multiplied by 5.

In making uſe of theſe tables, it is generally the betterneſs or worſeneſs of any ingot, which is to be taken out from them, according to the report; and when better, it is added to the groſs weight, but if worſe ſubſtracted from it, which gives the quantity of ſtandard contained in it.

Thus in the former examples, if the fineneſſes there given are put for the relative ones, inſtead of the abſolute ones, the anſwer will be as follows:

	oz.	dwt.	gr.	
To	400	0	0	Br. [illegible] iiij [illegible]
Add	28	4	12⅛	
	428	4	12⅛	ſtandard
From	70	0	0	Wo. [illegible]
Take	3	5	5¼	
	66	14	18¾	ſtandard
Alſo from	300	0	0	Wo. iij oz [illegible] ij [illegible]
take	97	19	11⅛	
	202	0	12⅞	ſtandard
From	80	0	0	Wo. iiij oz [illegible] ij [illegible]
Take	34	19	2⅝	
	45	0	21⅜	ſtandard
To	598	13	0	Br. [illegible] iij [illegible]
Add	35	1	2⅞	
	633	14	2⅞	ſtandard
To	183	2	0	Br. vij [illegible]
Add	6	3	17	
	189	5	17	ſtandard

TABLES

TABLES

OF THE

QUANTITY

OF

Standard GOLD,

Contained in any Ingot under
the Weight of 500 Ounces;

AND

From two Carats to one Quarter
Carat Grain in Fineneſs

	ij car.			j car. iij¾ gr			j car. iij½ gr		
oz.	oz.	dwt	gr.	oz.	dwt	gr.	oz.	dwt	gr.
500	45	9	2⅛	44	0	16⅜	42	12	6½
400	36	7	7½	35	4	13⅛	34	1	9⅝
300	27	5	11⅞	26	8	9⅞	25	11	8¾
200	18	3	5¾	17	12	6½	17	0	20⅛
100	9	1	19⅜	8	16	3¼	8	10	10⅞
90	8	3	14½	7	18	12½	7	13	9⅛
80	7	5	10⅞	7	0	21⅞	6	16	8¾
70	6	7	6⅛	6	3	7⅛	5	18	7⅝
60	5	9	2⅛	5	5	16⅜	5	2	6½
50	4	10	21⅛	4	8	1⅝	4	5	5½
40	3	12	17½	3	10	10⅞	3	8	4¾
30	2	14	13	2	12	20⅛	2	11	3¼
20	1	16	8¾	1	15	5½	1	14	2⅛
10	0	18	4⅜	0	17	14¾	0	17	1
9	0	16	8¾	0	15	20½	0	15	8⅛
8	0	14	13	0	14	2⅛	0	13	15⅜
7	0	12	17⅜	0	12	7⅞	0	11	22⅜
6	0	10	21¾	0	10	13⅝	0	10	5½
5	0	9	2⅛	0	8	19⅜	0	8	12½
4	0	7	6⅛	0	7	1⅛	0	6	19⅝
3	0	5	10¼	0	5	6⅞	0	5	2¾
2	0	3	15⅝	0	3	12½	0	3	9¾
1 oz.	0	1	19⅞	0	1	18¼	0	1	16⅞
19	0	1	17½	0	1	16⅛	0	1	14⅞
17	0	1	15¼	0	1	11⅞	0	1	10¾
13	0	1	4¼	0	1	3½	0	1	2⅝
11	0	1	0	0	0	23¼	0	0	22½
10	0	0	21⅞	0	0	21⅛	0	0	20½
9	0	0	19⅝	0	0	19	0	0	18⅜
8	0	0	17½	0	0	16⅞	0	0	16⅜
7	0	0	15¼	0	0	14¾	0	0	14⅜
6	0	0	13⅛	0	0	12⅝	0	0	12¼
5	0	0	10⅞	0	0	10⅝	0	0	10¼
4	0	0	8¾	0	0	8½	0	0	8⅛
3	0	0	6½	0	0	6⅜	0	0	6⅛
2	0	0	4⅝	0	0	4¼	0	0	4⅛
1 dwt.	0	0	2⅛	0	0	2⅛	0	0	2
½	0	0	1⅛	0	0	1	0	0	1

	j car iij¼ gr			j car iij gr			j car ij¾ gr		
oz.	oz.	dwt	gr.	oz.	dwt	gr.	oz.	dwt	gr.
500	41	3	20¾	39	15	10⅞	38	7	1⅛
400	32	19	2⅛	31	16	3⅝	30	13	15¼
300	24	14	7⅝	23	17	2¾	23	0	5½
200	16	9	13⅛	15	18	1⅞	15	6	19⅝
100	8	4	18½	7	19	0⅞	7	13	9⅞
90	7	8	7⅛	7	3	3½	6	18	1⅝
80	6	11	19⅝	6	7	5⅞	6	2	17½
70	5	15	8⅛	5	11	8	5	7	9¼
60	4	18	20¾	4	15	10⅛	4	12	1⅛
50	4	2	9¼	3	19	12½	3	16	16⅞
40	3	5	21⅞	3	3	16	3	1	8¾
30	2	9	10⅜	2	7	17⅛	2	6	0½
20	1	12	23	1	11	19½	1	10	16⅜
10	0	16	11½	0	15	21¾	0	15	8⅛
9	0	14	19⅞	0	14	7⅝	0	13	16⅜
8	0	13	4⅜	0	12	17⅜	0	12	6½
7	0	11	12⅞	0	11	3¼	0	10	17¾
6	0	9	21¼	0	9	13	0	9	4⅞
5	0	8	5¾	0	7	22⅞	0	7	16⅛
4	0	6	14¼	0	6	8¾	0	6	3¼
3	0	4	22⅝	0	4	18½	0	4	14½
2	0	3	7⅛	0	3	4⅜	0	3	1⅝
1 oz.	0	1	15½	0	1	14⅛	0	1	12⅞
19	0	1	13½	0	1	12¼	0	1	11
17	0	1	11⅝	0	1	8½	0	1	7¼
13	0	1	1¾	0	1	0¾	0	0	23⅞
11	0	0	21¾	0	0	21	0	0	20¼
10	0	0	19¾	0	0	19⅛	0	0	18⅜
9	0	0	17¾	0	0	17⅛	0	0	16⅝
8	0	0	15⅞	0	0	15¼	0	0	14¾
7	0	0	13⅞	0	0	13⅜	0	0	12⅞
6	0	0	11⅞	0	0	11½	0	0	11
5	0	0	9⅞	0	0	9½	0	0	9¼
4	0	0	7⅞	0	0	7⅝	0	0	7⅜
3	0	0	5⅞	0	0	5¾	0	0	5½
2	0	0	4	0	0	3⅞	0	0	3⅜
1 dwt.	0	0	2	0	0	1⅞	0	0	1⅞
½	0	0	1	0	0	1	0	0	0⅞

	1 Car. 1½ Gr.			1 Car. 1¼ Gr.			1 Car. 1 Gr.		
oz.	oz.	dwt	gr.	oz.	dwt	gr.	oz.	dwt	gr.
500	36	18	14¼	35	10	5½	34	1	19⅝
400	29	10	21⅞	28	8	4⅜	27	5	10⅞
300	22	3	4⅜	21	6	3¼	20	9	2⅛
200	14	15	10⅞	14	4	2⅛	13	12	17½
100	7	7	17½	7	2	1⅛	6	16	8¾
90	6	12	22⅞	6	7	20⅛	6	2	17½
80	5	18	4⅜	5	13	15¼	5	9	2⅛
70	5	3	9⅛	4	19	10⅜	4	15	10⅞
60	4	8	15¼	4	5	5½	4	1	19⅝
50	3	13	20¾	3	11	0½	3	8	4⅜
40	2	19	2⅛	2	16	19⅝	2	14	13⅛
30	2	4	7⅝	2	2	14¾	2	0	21⅞
20	1	9	13⅛	1	8	9⅞	1	7	6½
10	0	14	18½	0	14	4⅞	0	13	15¼
9	0	13	7⅛	0	12	18⅞	0	12	6½
8	0	11	19⅝	0	11	8¾	0	10	21⅛
7	0	10	8⅛	0	9	22⅝	0	9	13⅛
6	0	8	20¾	0	8	12½	0	8	4⅜
5	0	7	9¼	0	7	2½	0	6	19⅝
4	0	5	21⅞	0	5	16⅜	0	5	10⅞
3	0	4	10⅜	0	4	6¼	0	4	2⅛
2	0	2	22⅞	0	2	20⅛	0	2	17½
1 oz.	0	1	11½	0	1	10⅛	0	1	8¾
19	0	1	9⅝	0	1	8⅜	0	1	7⅛
17	0	1	6⅛	0	1	5	0	1	3⅛
13	0	0	23	0	0	22⅛	0	0	21¼
11	0	0	19½	0	0	18¾	0	0	18
10	0	0	17¾	0	0	17	0	0	16⅜
9	0	0	16	0	0	15⅜	0	0	14¾
8	0	0	14⅛	0	0	13⅝	0	0	13⅛
7	0	0	12⅜	0	0	11⅞	0	0	11½
6	0	0	10⅝	0	0	10¼	0	0	9⅞
5	0	0	8⅞	0	0	8½	0	0	8⅛
4	0	0	7⅛	0	0	6⅞	0	0	6½
3	0	0	5⅜	0	0	5⅛	0	0	4⅞
2	0	0	3½	0	0	3⅜	0	0	3¼
1 dwt.	0	0	1⅞	0	0	1¾	0	0	1⅝
½	0	0	0⅞	0	0	0⅞	0	0	0⅞

	ij car j¾ gr.			i car j½ gr			ij car j¼ gr.		
oz.	oz.	dwt	gr.	oz.	dwt	gr.	oz.	dwt	gr.
500	32	13	9⅝	31	5	0	29	16	14⅛
400	26	2	17¼	25	0	0	23	17	6½
300	19	12	1	18	15	0	17	17	22⅞
200	13	1	8⅝	12	10	0	11	18	15¼
100	6	10	16⅜	6	5	0	5	19	7⅝
90	5	17	14¾	5	12	12	5	7	9¼
80	5	4	13	5	0	0	4	15	10⅞
70	4	11	11½	4	7	12	4	3	12½
60	3	18	9⅞	3	15	0	3	11	14⅛
50	3	5	8⅛	3	2	12	2	19	15⅞
40	2	12	6½	2	10	0	2	7	17½
30	1	19	4⅞	1	17	12	1	15	19⅛
20	1	6	3¼	1	5	0	1	3	20¾
10	0	13	1⅝	0	12	12	0	11	22⅜
9	0	11	18⅜	0	11	6	0	10	17¾
8	0	10	10⅞	0	10	0	0	9	13⅞
7	0	9	3½	0	8	18	0	8	8½
6	0	7	20¼	0	7	12	0	7	3⅞
5	0	6	12¾	0	6	6	0	5	23⅛
4	0	5	5⅜	0	5	0	0	4	18½
3	0	3	22⅛	0	3	18	0	3	13⅞
2	0	2	14⅝	0	2	12	0	2	9¼
1 oz.	0	1	7⅜	0	1	6	0	1	4⅝
19	0	1	5¾	0	1	4½	0	1	3¼
17	0	1	2⅝	0	1	1½	0	1	0⅜
13	0	0	20⅜	0	0	19½	0	0	18¾
11	0	0	17¼	0	0	16½	0	0	15¾
10	0	0	15⅝	0	0	15	0	0	14⅜
9	0	0	14⅛	0	0	13½	0	0	12⅞
8	0	0	12½	0	0	12	0	0	11½
7	0	0	11	0	0	10½	0	0	10
6	0	0	9⅜	0	0	9	0	0	8⅜
5	0	0	7⅞	0	0	7½	0	0	7⅛
4	0	0	5¾	0	0	6	0	0	5¾
3	0	0	4¾	0	0	4½	0	0	4¼
2	0	0	3⅛	0	0	3	0	0	2⅞
1 dwt.	0	0	1⅝	0	0	1½	0	0	1⅜
½	0	0	0¾	0	0	0¾	0	0	0¾

	j car j gr			j car ¾ gr.			j car ½ gr.		
oz.	oz.	dwt	gr.	oz.	dwt	gr.	oz.	dwt	gr.
500	28	8	4⅜	26	19	18½	25	11	9¾
400	22	14	14¾	21	11	19⅝	20	9	2⅛
300	17	0	22⅝	16	3	20¾	15	6	19⅝
200	11	7	7⅛	10	15	21⅞	10	4	13⅛
100	5	13	15⅝	5	7	22⅞	5	2	6½
90	5	2	6¾	4	17	3⅞	4	12	1⅛
80	4	10	22	4	6	8¾	4	1	19¾
70	3	19	13¼	3	15	13⅝	3	11	14⅛
60	3	8	4½	3	4	18½	3	1	8¾
50	2	16	19¾	2	13	11½	2	11	3¼
40	2	5	11	2	3	4⅜	2	0	21⅞
30	1	14	2¼	1	12	9¼	1	10	16⅜
20	1	2	17½	1	1	14⅛	1	0	10⅞
10	0	11	8¾	0	10	19⅛	0	10	5½
9	0	10	2½	0	9	17⅞	0	9	4⅞
8	0	9	2¼	0	8	15¼	0	8	4⅜
7	0	7	23	0	7	13⅜	0	7	3⅞
6	0	6	19¾	0	6	11½	0	6	3¼
5	0	5	16⅜	0	5	9½	0	5	2¾
4	0	4	13⅛	0	4	7⅝	0	4	2⅛
3	0	3	9⅞	0	3	5¾	0	3	1⅛
2	0	2	6⅛	0	2	3⅞	0	2	1⅛
1 oz.	0	1	3¼	0	1	1⅞	0	1	0½
19	0	1	1⅞	0	1	0⅝	0	0	23⅜
17	0	0	23¼	0	0	22	0	0	20⅞
13	0	0	17¾	0	0	16⅞	0	0	16
11	0	0	15	0	0	14¼	0	0	13½
10	0	0	13⅝	0	0	13	0	0	12¼
9	0	0	12¼	0	0	11⅝	0	0	11
8	0	0	10⅞	0	0	10⅜	0	0	9⅞
7	0	0	9½	0	0	9⅛	0	0	8⅝
6	0	0	8⅛	0	0	7¾	0	0	7⅜
5	0	0	6⅞	0	0	6½	0	0	6⅛
4	0	0	5½	0	0	5⅛	0	0	4⅞
3	0	0	4⅛	0	0	3⅞	0	0	3⅝
2	0	0	2¾	0	0	2⅜	0	0	2½
1 dt.	0	0	1⅜	0	0	1¼	0	0	1¼
½	0	0	0¾	0	0	0⅝	0	0	0⅝

	j car ½ gr			j car.			iij ¾ gr		
oz.	oz.	dwt	gr.	oz.	dwt	gr.	oz.	dwt	gr.
500	24	2	22⅞	22	14	13⅛	21	6	3¼
400	19	6	8¾	8	3	15¼	17	0	21¾
300	14	9	18½	13	12	17½	12	15	16⅜
200	9	13	4⅜	9	1	19⅝	8	10	10⅞
100	4	16	14⅛	4	10	21⅞	3	5	5½
90	4	6	22⅜	4	1	19¼	3	16	16⅞
80	3	17	6½	3	12	17½	3	8	4⅜
70	3	7	14¾	3	3	15¼	2	19	15¾
60	2	17	22⅞	2	14	13⅛	2	11	3¼
50	2	8	7⅛	2	5	10⅞	2	2	14¾
40	1	18	15¼	1	16	8¾	1	14	2⅛
30	1	8	23½	1	7	6½	1	5	13⅝
20	0	19	7 6/8	0	18	4⅝	0	17	1⅛
10	0	9	15⅞	0	9	2½	0	8	12½
9	0	8	16⅝	0	8	4⅜	0	7	16⅛
8	0	7	17½	0	7	6½	0	6	19⅝
7	0	6	18⅛	0	6	8¾	0	5	23⅛
6	0	5	18⅞	0	5	10⅞	0	5	2¾
5	0	4	19⅞	0	4	13⅛	0	4	6¼
4	0	3	20¾	0	3	15¼	0	3	9¾
3	0	2	21½	0	2	17½	0	2	13⅜
2	0	1	22⅜	0	1	19⅝	0	1	16⅞
1 oz.	0	0	23⅛	0	0	21⅞	0	0	20½
19	0	0	22	0	0	20¾	0	0	19⅜
17	0	0	19¾	0	0	18½	0	0	17⅜
13	0	0	15⅛	0	0	14⅛	0	0	13¼
11	0	0	12¾	0	0	12	0	0	11¼
10	0	0	11⅝	0	0	10⅞	0	0	10¼
9	0	0	10⅜	0	0	9¾	0	0	9¼
8	0	0	9¼	0	0	8¾	0	0	8⅛
7	0	0	8⅛	0	0	7⅝	0	0	7⅛
6	0	0	7	0	0	6½	0	0	6⅛
5	0	0	5¾	0	0	5½	0	0	5⅛
4	0	0	4⅝	0	0	4⅜	0	0	4⅛
3	0	0	3½	0	0	3¼	0	0	3⅛
2	0	0	2⅜	0	0	2⅛	0	0	2
1 dwt	0	0	1⅛	0	0	1⅛	0	0	1
½	0	0	0⅝	0	0	0½	0	0	0½

	11 ½ gr.			11 ¼ gr.			11 gr.		
oz.	oz	dwt	gr.	oz.	dwt	gr.	oz.	dwt	gr.
500	19	17	17½	18	9	7⅜	17	0	21⅞
400	18	18	1⅞	14	15	10⅞	13	12	17½
300	11	18	13⅜	11	1	14⅛	10	4	13⅛
200	7	19	0⅞	7	13	17½	6	16	8¾
100	3	19	12½	3	13	20¾	3	8	4⅜
90	3	11	13¾	3	6	11½	3	1	8¾
80	3	3	15	2	19	2⅛	2	14	13⅛
70	2	15	16	2	11	16⅞	2	7	17½
60	2	7	17⅛	2	4	7⅝	2	0	21⅞
50	1	19	18¼	1	16	22⅜	1	14	2⅛
40	1	11	19½	1	9	13⅛	1	7	6½
30	1	3	20½	1	2	3⅞	1	0	10⅞
20	0	15	21¾	0	14	18½	0	13	15¼
10	0	7	22⅞	0	7	9¼	0	6	19¾
9	0	7	3¾	0	6	15½	0	6	3¼
8	0	6	8¾	0	5	21⅞	0	5	10⅞
7	0	5	13⅝	0	5	4⅛	0	4	18½
6	0	4	18½	0	4	10⅜	0	4	2⅛
5	0	3	23⅜	0	3	16⅝	0	3	9⅞
4	0	3	4⅜	0	2	22⅞	0	2	17½
3	0	2	9¼	0	2	5⅛	0	2	1⅛
2	0	1	14⅛	0	1	11½	0	1	8¾
1 oz.	0	0	19⅛	0	0	17¾	0	0	16⅜
19	0	0	18⅛	0	0	16⅞	0	0	15½
17	0	0	16¼	0	0	15⅛	0	0	13⅞
13	0	0	12⅜	0	0	11½	0	0	10⅝
11	0	0	10½	0	0	9¾	0	0	9
10	0	0	9½	0	0	8⅞	0	0	8⅛
9	0	0	8⅝	0	0	8	0	0	7⅜
8	0	0	7⅝	0	0	7⅛	0	0	6½
7	0	0	6⅝	0	0	6¼	0	0	5¾
6	0	0	5¾	0	0	5⅜	0	0	4⅞
5	0	0	4¾	0	0	4⅜	0	0	4⅛
4	0	0	3⅞	0	0	3½	0	0	3¼
3	0	0	2⅞	0	0	2⅝	0	0	2½
2	0	0	1⅞	0	0	1¾	0	0	1⅝
1 dt.	0	0	1	0	0	0⅞	0	0	0⅞
½	0	0	0½	0	0	0½	0	0	0⅜

	ij ¾ gr.			ij ½ gr.			ij ¼ gr.		
oz.	oz.	dwt	gr.	oz.	dwt	gr.	oz.	dwt	gr.
500	15	12	12	14	4	4⅞	12	15	16⅜
400	12	10	0	11	7	8¾	10	4	13⅛
300	9	7	12	8	10	12½	7	13	9⅞
200	6	5	0	5	13	16⅜	5	2	6½
100	3	2	12	2	16	20⅛	2	11	3¼
90	2	16	6	2	11	3¾	2	6	0½
80	2	10	0	2	5	11⅜	2	0	21⅞
70	2	3	18	1	19	18⅞	1	15	19⅛
60	1	17	12	1	14	2½	1	10	16⅜
50	1	11	6	1	8	10⅛	1	5	13⅝
40	1	5	0	1	2	17⅝	1	0	10⅞
30	0	18	18	0	17	1¼	0	15	8⅛
20	0	12	12	0	11	8⅞	0	10	5½
10	0	6	6	0	5	16⅜	0	5	2¾
9	0	5	15	0	5	2¾	0	4	14½
8	0	5	0	0	4	13⅛	0	4	2⅝
7	0	4	9	0	3	23½	0	3	13⅞
6	0	3	18	0	3	9⅞	0	3	1⅝
5	0	3	3	0	2	20¼	0	2	13⅜
4	0	2	12	0	2	6½	0	2	1⅛
3	0	1	21	0	1	16⅞	0	1	12⅞
2	0	1	6	0	1	3¼	0	1	0½
1 oz.	0	0	15	0	0	13⅝	0	0	12¼
19	0	0	14¼	0	0	13	0	0	11⅝
17	0	0	12¾	0	0	11⅝	0	0	10⅜
13	0	0	9¾	0	0	8⅞	0	0	8
11	0	0	8¼	0	0	7½	0	0	6¾
10	0	0	7½	0	0	6⅞	0	0	6⅛
9	0	0	6¾	0	0	6⅛	0	0	5½
8	0	0	6	0	0	5½	0	0	4⅞
7	0	0	5¼	0	0	4¾	0	0	4¼
6	0	0	4½	0	0	4⅛	0	0	3⅝
5	0	0	3¾	0	0	3⅜	0	0	3⅛
4	0	0	3	0	0	2¾	0	0	2½
3	0	0	2¼	0	0	2	0	0	1⅞
2	0	0	1½	0	0	1⅜	0	0	1¼
1 dwt.	0	0	0¾	0	0	0⅝	0	0	0⅝
½	0	0	0⅜	0	0	0⅜	0	0	0½

	2 gr.			1¾ gr.			1½ gr.		
oz.	oz.	dwt	gr.	oz.	dwt	gr.	oz.	dwt	gr.
500	11	7	6½	9	18	20¾	8	10	10⅞
400	9	1	19⅝	7	19	0⅞	6	16	8¾
300	6	16	8¾	5	19	16⅝	5	2	6½
200	4	10	21⅞	3	19	12½	3	8	4⅜
100	2	5	10⅞	1	19	18¼	1	14	2⅛
90	2	0	21⅝	1	15	18⅞	1	10	16⅜
80	1	16	8¾	1	11	19½	1	7	6½
70	1	11	19⅝	1	7	20	1	3	20¾
60	1	7	6½	1	3	20½	1	0	10⅞
50	1	2	17½	0	19	21⅛	0	17	1⅛
40	0	18	4⅜	0	15	21¾	0	13	15¼
30	0	13	15¼	0	11	22¼	0	10	5½
20	0	9	2⅛	0	7	22⅞	0	6	19⅝
10	0	4	13⅛	0	3	23⅜	0	3	9⅞
9	0	4	2⅛	0	3	13⅞	0	3	1⅝
8	0	3	15¼	0	3	4⅜	0	2	17½
7	0	3	4⅜	0	2	18¾	0	2	9¼
6	0	2	17½	0	2	9¼	0	2	1⅛
5	0	2	6½	0	1	23¾	0	1	16⅞
4	0	1	19⅝	0	1	14⅛	0	1	8¾
3	0	1	8¾	0	1	4⅝	0	1	0½
2	0	0	21⅞	0	0	19⅛	0	0	16⅜
1 oz.	0	0	10⅞	0	0	9½	0	0	8⅛
19	0	0	10⅜	0	0	9⅛	0	0	7¾
17	0	0	9¼	0	0	8⅛	0	0	7
13	0	0	7⅛	0	0	6¼	0	0	5⅜
11	0	0	6	0	0	5¼	0	0	4½
10	0	0	5½	0	0	4¾	0	0	4⅛
9	0	0	4⅞	0	0	4¼	0	0	3⅝
8	0	0	4⅜	0	0	3⅞	0	0	3¼
7	0	0	3⅞	0	0	3⅜	0	0	2⅞
6	0	0	3¼	0	0	2⅞	0	0	2½
5	0	0	2¾	0	0	2⅜	0	0	2
4	0	0	2⅛	0	0	1⅞	0	0	1⅝
3	0	0	1⅝	0	0	1⅜	0	0	1¼
2	0	0	1⅛	0	0	1	0	0	0⅞
1 dwt.	0	0	0½	0	0	0½	0	0	0⅜
½	0	0	0¼	0	0	0¼	0	0	0¼

	j¼ gr.			j gr.			¾ gr.		
oz.	oz	dwt	gr.	oz.	dwt	gr.	oz.	dwt	gr.
500	7	2	2¼	5	3	15¼	4	5	5⅜
400	5	13	16⅜	4	10	21⅞	3	8	4⅜
300	4	5	6¼	3	8	4⅜	2	11	3⅜
200	2	16	20⅛	2	5	10⅞	1	14	2⅛
100	1	8	10⅛	1	2	17½	0	17	1⅛
90	1	5	13⅞	1	0	10⅞	0	15	8⅛
80	1	2	17⅝	0	18	4⅜	0	13	15¼
70	0	19	21½	0	15	21⅞	0	11	22⅜
60	0	17	1¼	0	13	15¼	0	10	5½
50	0	14	5	0	11	8¾	0	8	12½
40	0	11	8⅞	0	9	2⅛	0	6	19⅝
30	0	8	12⅝	0	6	19⅝	0	5	2¾
20	0	5	16⅜	0	4	13⅛	0	3	9⅞
10	0	2	20¼	0	2	6½	0	1	16⅞
9	0	2	13⅜	0	2	1⅛	0	1	12⅞
8	0	2	6⅝	0	1	19⅝	0	1	8¾
7	0	1	23¾	0	1	14¼	0	1	4⅝
6	0	1	16⅞	0	1	8¾	0	1	0½
5	0	1	10⅛	0	1	3⅜	0	0	20½
4	0	1	3¼	0	0	21⅞	0	0	16⅜
3	0	0	20½	0	0	16⅜	0	0	12¼
2	0	0	13⅝	0	0	10⅞	0	0	8⅛
1 oz.	0	0	6⅞	0	0	5½	0	0	4⅛
19	0	0	6½	0	0	5⅛	0	0	3⅞
17	0	0	5¾	0	0	4⅝	0	0	3½
13	0	0	4⅜	0	0	3½	0	0	2⅝
11	0	0	3¾	0	0	3	0	0	2¼
10	0	0	3⅜	0	0	2¾	0	0	2
9	0	0	3⅛	0	0	2½	0	0	1¾
8	0	0	2¾	0	0	2⅛	0	0	1⅝
7	0	0	2⅜	0	0	1⅞	0	0	1⅜
6	0	0	2	0	0	1⅝	0	0	1¼
5	0	0	1¾	0	0	1⅜	0	0	1
4	0	0	1⅜	0	0	1⅛	0	0	0⅞
3	0	0	1	0	0	0⅞	0	0	0⅝
2	0	0	0⅝	0	0	0½	0	0	0⅜
1 dwt.	0	0	0⅜	0	0	0¼	0	0	0¼
½	0	0	0⅛	0	0	0⅛	0	0	0⅛

	½ gr			¼ gr.			car.	gr.	ca.gr mult
oz.	oz.	dwt	gr	oz	dwt	gr.	ij	0 ¼	0-2¾ by 3
500	2	16	19⅞	1	8	9⅞	ij	0 ¾	0-1¾ by 5
400	2	5	10⅞	1	2	17½	ij	j ¾	0-3¼ by 3
300	1	14	2⅛	0	17	1⅛	iij	0 ¼	0-1¾ by 7
200	1	2	17½	0	11	8¾	iij	0 ¾	1-0¼ by 3
100	0	11	8¾	0	5	16⅜	iij	j ¾	0-2¾ by 5
90	0	10	5¼	0	5	2¾	iij	iij ¾	0-2¼ by 7
80	0	9	2⅛	0	4	13⅛	iiij	0 ¼	0-3¼ by 5
70	0	7	22⅞	0	3	23½	iiij	0 ½	0-2¾ by 6
60	0	6	19⅝	0	3	9⅞	iiij	j	1-0¼ by 4
50	0	5	16⅜	0	2	20⅛	iiij	j ½	1-3½ by 5
40	0	4	13⅛	0	2	6½	iiij	ij	0-2¼ by 8
30	0	3	9⅞	0	1	16⅞	iiij	ij ¾	0-3¾ by 5
20	0	2	6½	0	1	8¼	iiij	iij	1-0¾ by 4
10	0	1	3¼	0	0	13⅝	iiij	iij ¼	0-2¾ by 7
9	0	1	0½	0	0	12¼	iiij	iij ½	0-3¼ by 6
8	0	0	21⅞	0	0	10⅞	v	0 ¼	0-2¼ by 9
7	0	0	19⅛	0	0	9½	v	j	0-3 by 7
6	0	0	16⅜	0	0	8⅛	v	j ¼	1-0¼ by 5
5	0	0	13⅝	0	0	6⅞	v	j ¾	1-3¼ by 3
4	0	0	10⅞	0	0	5½	v	ij	0-2¾ by 8
3	0	0	8⅛	0	0	4⅛	v	ij ½	0-3¾ by 6
2	0	0	5½	0	0	2¾	v	ij ¾	0-3¼ by 7
1 oz.	0	0	2¾	0	0	1⅜	v	iij	-1¾ b 4
19	0	0	2⅝	0	0	1¼	vj	j	1-1 by 5
17	0	0	2⅜	0	0	1⅛	vj	j ½	-0¼ by 6
13	0	0	1¾	0	0	0⅞	vj	ij	0-3¼ by 8
11	0	0	1½	0	0	0¾	vj	ij ¼	1-1¼ by 5
10	0	0	1⅜	0	0	0⅝	vj	iij	1-0½ by 6
9	0	0	1¼	0	0	0⅝	vj	iij ½	1-1½ by 5
8	0	0	1⅛	0	0	0½	vij	0 ½	1-0¾ by 6
7	0	0	1	0	0	0½	vij	0 ¾	1-1¾ by 5
6	0	0	0⅞	0	0	0⅜	vij	j ¼	0-3¼ by 9
5	0	0	0½	0	0	0⅜	vij	ij	1-2 by 5
4	0	0	0½	0	0	0¼	vij	iij	1-3¾ by 4
3	0	0	0⅜	0	0	0¼	vij	iij ¼	1-2¼ by 5
2	0	0	0¼	0	0	0⅛	vij	iij ½	1-1¼ by 6
1 dwt	0	0	0⅛	0	0	0⅛	viij	0 ½	1-2½ by 5
½	0	0	0⅛	0	0	0	viij	j	1-1½ by 6

Uſe of the GOLD TABLES.

The fineneſs from 2 carats to ¼ of a carat grain ſtands at the top of the page, and the weight from 500 ounces to one half pennyweight on the ſide, and where they meet is the quantity of ſtandard; thus againſt 200 ounces, and under 1 car. 1¼ gr. is 11 oz. 18 dwt. 15¼ gr. againſt 70 oz. is 4 oz. 3 dwt. 12½ gr. againſt 3 oz. is 3 dwt. 13⅞ gr. and againſt 4 dwt. is 5¾ gr. which is the ſtandard contained in each, and by adding them together we have 16 oz. 6 dwt. 9½ gr. which is the quantity in 273 oz. 4 dwt. of that fineneſs.

The ſtandard in any fineneſs between 2 car. and 4 car. (except the ½ grains) is obtained by halveing the given fineneſs, taking the ſtandard out of the table under that ½ fineneſs, and then doubling of it, as if the given fineneſs was 2 car. 3½ gr. the ½ fineneſs of which is 1 car. 1¾ gr. againſt 500 oz. of which ſtands 32 oz. 13 dwt. 9⅝ gr. againſt 30 ounces is 1 oz. 19 dwt. 4⅞ gr. and againſt 19 dwt. is 1 dwt. 5¾ gr. any of which being doubled ſeparately will give the quantity of ſtandard, as 65 oz. 6 dwt. 19¼ gr. for that in 500 oz. 3 oz. 18 dwt. 9¾ gr. for that in 30 oz. and 2 dwt. 11½ gr. for that in 19 dwt. and if they are added together and then doubled, we ſhall have

34 oz.

34 oz 13 dwt. 20¼ gr. for the ſtandard in 530 oz. 19 dwt. of that fineneſs.

In like manner the ſtandard in any of the fineneſſes in the laſt column of the table, may be found by multiplying thoſe ſet againſt them by 3, 4, 5, &c. and univerſally if the quantity under 1 car. be multiplied by the number of carats, and divided by the aliquot parts of a carat for the grains and quarters, it will give the quantity of ſtandard required, as appears by the work in explaining the uſe of the ſilver tables in page 97.

The fineneſſes we have given examples in, are the abſolute ones, or whoſe relation to ſtandard is not conſidered, but it is generally the reports or relative fineneſſes, which are collected out of theſe tables, exactly in the ſame manner as thoſe above; the only difference being in that they muſt be added to the groſs weight if better, and ſubſtracted from it if worſe than ſtandard. Thus if the 273 oz. 4 dwt. above be better 1 car. 1¼ gr. there will be 289 oz. 10 dwt. 9½ gr. of ſtandard in it, but if worſe, but 256 oz. 17 dwt. 14½ gr. and 530 oz. 19 dwt. Wo. 2 car. 3½ gr. contains 496 oz. 6 dwt. 3¾ gr. of ſtandard.

TABLES OF THE QUANTITY OF SILVER,

From 18 Dwt. to Half a Pennyweight better, to be added to one Ounce of Silver, from Half a Pennyweight to 20 Dwt. worſe, to make it Standard.

	xviij d No.			xvij d No ob			xvij d No		
wo.	oz	dt.	gr.	oz	dt.	gr.	oz	d.	gr.
j oz	1	2	5⅜	1	2	20⅝	1	3	12½
xix ob	1	1	16	1	2	6⅞	1	2	2[illegible]⅞
xix	1	1	2⅝	1	1	17⅛	1	2	8½
xviij ob	1	0	13⅜	1	1	3⅜	1	1	18⅜
xviij	1	0	0	1	0	13¾	1	1	4¼
xvij ob	0	19	10⅝	1	0	0	1	0	14⅛
xvij	0	18	21⅜	0	19	10¼	1	0	0
xvj ob	0	18	8	0	18	20⅝	0	19	9⅞
xvj	0	17	18⅝	0	18	6⅞	0	18	19¾
xv ob	0	17	5⅜	0	17	17⅛	0	18	5⅝
xv	0	16	16	0	17	3⅜	0	17	15½
xiv ob	0	16	2⅝	0	16	13⅛	0	17	1⅜
xiv	0	15	13⅜	0	16	0	0	16	11¼
xiij ob	0	15	0	0	15	10¼	0	15	21⅛
xiij	0	14	10⅝	0	14	20⅝	0	15	7⅛
xij ob	0	13	21⅜	0	14	6⅞	0	14	17
xij	0	13	8	0	13	17⅛	0	14	2⅞
xj ob	0	12	18⅝	0	13	3⅜	0	13	12¾
xj	0	12	5⅜	0	12	13¾	0	12	22⅝
x ob	0	11	16	0	12	0	0	12	8½
x	0	11	2⅝	0	11	10¼	0	11	18⅜
ix ob	0	10	13⅜	0	10	20⅝	0	11	4¼
ix	0	10	0	0	10	6⅞	0	10	14⅛
viij ob	0	9	10⅝	0	9	17⅛	0	10	0
viij	0	8	21⅜	0	9	3⅜	0	9	9⅞
vij ob	0	8	8	0	8	13¾	0	8	19¾
vij	0	7	18⅝	0	8	0	0	8	5⅝
vj ob	0	7	5⅜	0	7	10¼	0	7	15½
vj	0	6	16	0	6	20⅝	0	7	1⅜
v ob	0	6	2⅝	0	6	6⅞	0	6	11¼
v	0	5	13⅜	0	5	17⅛	0	5	21⅛
iiij ob	0	5	0	0	5	3⅜	0	5	7⅛
iiij	0	4	10⅝	0	4	13¾	0	4	17⅛
iij ob	0	3	21⅜	0	4	0	0	4	2⅞
iij	0	3	8	0	3	10¼	0	3	12¾
ij ob	0	2	18⅜	0	2	20⅝	0	2	22⅝
ij	0	2	5⅜	0	2	6⅞	0	2	8½
j ob	0	1	16	0	1	17⅛	0	1	18⅜
j	0	1	2⅝	0	1	3⅜	0	1	4¼
ob	0	0	13⅜	0	0	13¾	0	0	14⅛

	xvj dwt. ß			xvj dwt.			xv dwt. ß		
Wo.	oz	dt.	gr.	oz	dt.	gr.	oz	dt.	gr.
j oz.	1	4	5⅞	1	5	0	1	5	19⅜
xix ß	1	3	15¼	1	4	9	1	5	3⅞
xix	1	3	0¾	1	3	18	1	4	12⅜
xviij ß	1	2	10⅛	1	3	3	1	3	20⅞
xviij	1	1	19⅝	1	2	12	1	3	5⅜
xvij ß	1	1	5⅛	1	1	21	1	2	13⅞
xvij	1	0	14½	1	1	6	1	1	22½
xvj ß	1	0	0	1	0	15	1	1	7
xvj	0	19	9⅛	1	0	0	1	0	15½
xv ß	0	18	18⅞	0	19	9	1	0	0
xv	0	18	4⅜	0	18	18	0	19	8½
xiiij ß	0	17	13¾	0	18	3	0	18	17
xiiij	0	16	23¼	0	17	12	0	18	1½
xiij ß	0	16	8¾	0	16	21	0	17	10⅛
xiij	0	15	18⅛	0	16	6	0	16	18⅝
xij ß	0	15	3⅝	0	15	15	0	16	3⅛
xij	0	14	13⅛	0	15	0	0	15	11⅝
xj ß	0	13	22⅝	0	14	9	0	14	20⅛
xj	0	13	8	0	13	18	0	14	4⅝
x ß	0	12	17½	0	13	3	0	13	13⅛
x	0	12	2⅞	0	12	12	0	12	21⅝
ix ß	0	11	12⅜	0	11	21	0	12	6¼
ix	0	10	21⅞	0	11	6	0	11	14¾
viij ß	0	10	7¼	0	10	15	0	10	23¼
viij	0	9	16¾	0	10	0	0	10	7¾
vij ß	0	9	2⅛	0	9	9	0	9	16¼
vij	0	8	11⅝	0	8	18	0	9	0¾
vj ß	0	7	21⅛	0	8	3	0	8	9¼
vj	0	7	6½	0	7	12	0	7	17¾
v ß	0	6	16	0	6	21	0	7	2¼
v	0	6	1½	0	6	6	0	6	10⅞
iiij ß	0	5	10⅞	0	5	15	0	5	19⅜
iiij	0	4	20⅜	0	5	0	0	5	3⅞
iij ß	0	4	5⅞	0	4	9	0	4	12⅜
iij	0	3	15¼	0	3	18	0	3	20⅞
ij ß	0	3	0¾	0	3	3	0	3	5⅜
ij	0	2	10⅛	0	2	12	0	2	13⅞
j ß	0	1	19⅝	0	1	21	0	1	22½
j	0	1	5⅛	0	1	6	0	1	7
ß	0	0	14½	0	0	15	0	0	15½

	xv d lb			xiiij d lb ob			xiiij d lb		
Wo.	oz	dt.	gr.	oz	dt.	gr.	oz.	dt.	gr.
j oz	1	6	16	1	7	14⅛	1	8	13¾
xix ob	1	6	0	1	6	21½	1	7	20⅞
xix	1	5	8	1	6	5	1	7	3⅜
xviij ob	1	4	16	1	5	12⅛	1	6	10¼
xviij	1	4	0	1	4	19⅞	1	5	17⅛
xvij ob	1	3	8	1	4	3¼	1	5	0
xvij	1	2	16	1	3	10⅜	1	4	6⅞
xvj ob	1	2	0	1	2	18¼	1	3	13¾
xvj	1	1	8	1	2	1⅝	1	2	20⅝
xv ob	1	0	16	1	1	9⅛	1	2	3⅜
xv	1	0	0	1	0	16½	1	1	10¼
xiiij ob	1	19	8	1	0	0	1	0	17⅛
xiiij	0	18	16	0	19	7½	1	0	0
xiij ob	0	18	0	0	18	14⅞	0	19	6⅞
xiij	0	17	8	0	17	22¼	0	18	13¾
xij ob	0	16	16	0	17	5¾	0	17	20⅝
xij	0	16	0	0	16	13¼	0	17	3¾
xj ob	0	15	8	0	15	20⅝	0	16	10¼
xj	0	14	16	0	15	4⅛	0	15	17⅛
x ob	0	14	0	0	14	11½	0	15	0
x	0	13	8	0	13	19	0	14	6⅞
ix ob	0	12	16	0	13	2½	0	13	13¾
ix	0	12	0	0	12	9⅞	0	12	20⅝
viij ob	0	11	8	0	11	17⅜	0	12	3⅜
viij	0	10	16	0	11	0¾	0	11	10¼
vij ob	0	10	0	0	10	8¼	0	10	17⅛
vij	0	9	8	0	9	15¾	0	10	0
vj ob	0	8	16	0	8	23⅛	0	9	6⅞
vj	0	8	0	0	8	6⅝	0	8	13¾
v ob	0	7	8	0	7	14⅛	0	7	20⅝
v	0	6	16	0	6	21½	0	7	3⅜
iiij ob	0	6	0	0	6	5	0	6	10¼
iiij	0	5	8	0	5	12⅜	0	5	17⅛
iij ob	0	4	16	0	4	19⅞	0	5	0
iij	0	4	0	0	4	3¼	0	4	6⅞
ij ob	0	3	8	0	3	10¾	0	3	13¾
ij	0	2	16	0	2	18¼	0	2	20⅝
j ob	0	2	0	0	2	1⅝	0	2	3⅜
j	0	1	8	0	1	9⅛	0	1	10¼
x	0	0	16	0	0	16½	0	0	17⅛

	xiij d N°. ſs			xiij d N°			xij d N°. ſs		
Wo.	oz	dt.	gr.	oz	dt.	gr.	oz	dt.	gr.
j oz	1	9	15⅛	1	10	18½	1	12	0
xix ſs	1	8	21⅜	1	10	0	1	11	4⅞
xix	1	8	3½	1	9	5½	1	10	9⅝
xviij ſs	1	7	9¾	1	8	11⅛	1	9	14⅜
xviij	1	6	16	1	7	16⅝	1	8	19¼
xvij ſs	1	5	22½	1	6	22⅛	1	8	0
xvij	1	5	4⅜	1	6	3¾	1	7	4⅞
xvj ſs	1	4	10⅝	1	5	9¼	1	6	9⅝
xvj	1	3	16⅞	1	4	14¾	1	5	14⅜
xv ſs	1	2	23⅛	1	3	20¼	1	4	19¼
xv	1	2	5⅜	1	3	1⅞	1	4	0
xiv ſs	1	1	11½	1	2	7⅜	1	3	4⅞
xiv	1	0	17¾	1	1	12⅞	1	2	9⅝
xiij ſs	1	0	0	1	0	18½	1	1	14⅜
xiij	0	19	6¼	1	0	0	1	0	19¼
xij ſs	0	18	21⅜	0	19	5½	1	0	0
xij	0	18	2⅜	0	18	11⅛	1	19	4⅞
xj ſs	0	17	0⅞	0	17	16⅝	0	18	9⅝
xj	0	16	7⅛	0	16	22⅛	0	17	14⅜
x ſs	0	15	13⅛	0	16	3¾	0	16	19¼
x	0	14	19½	0	15	9¼	0	16	0
ix ſs	0	14	1¾	0	14	14¾	0	15	4⅞
ix	0	13	8	0	13	20¼	0	14	9⅝
viij ſs	0	12	14¼	0	13	1⅞	0	13	14⅜
viij	0	11	20⅜	0	12	7⅜	0	12	19¼
vij ſs	0	11	2⅜	0	11	12⅞	0	12	0
vij	0	10	8⅛	0	10	18½	0	11	4⅞
vj ſs	0	9	15⅛	0	10	0	0	10	9⅝
vj	0	8	21⅜	0	9	5½	0	9	14⅜
v ſs	0	8	3½	0	8	11⅛	0	8	19¼
v	0	7	9¾	0	7	16⅝	0	8	0
iiij ſs	0	6	16	0	6	22⅛	0	7	4⅞
iiij	0	5	22¼	0	6	3¾	0	6	9⅝
iij ſs	0	5	4⅜	0	5	9¼	0	5	14⅜
iij	0	4	10⅝	0	4	14¾	0	4	19¼
ij ſs	0	3	16⅞	0	3	20¼	0	4	0
ij	0	2	23⅛	0	3	1⅞	0	3	4⅞
j ſs	0	2	5⅜	0	2	7⅜	0	2	9⅝
j	0	1	11½	0	1	12⅞	0	1	14⅜
ſs	0	0	17¾	0	0	18½	0	0	19¼

	xij dwt			xj dwt ob			xj dwt		
Wo.	oz	dt.	gr	oz	dt.	gr	oz	dt.	gr.
j oz.	1	13	8	1	14	18¾	1	16	6¼
xix ob	1	12	12	1	13	21⅞	1	15	10⅞
xix	1	11	16	1	13	1	1	14	13⅛
xviij ob	1	10	20	1	12	4⅛	1	13	15¼
xviij	1	10	0	1	11	7¼	1	12	17½
xvij ob	1	9	4	1	10	10⅜	1	11	19⅝
xvij	1	8	8	1	9	13⅝	1	10	21⅞
xvj ob	1	7	12	1	8	16¾	1	10	0
xvj	1	6	16	1	7	19⅞	1	9	2⅛
xv ob	1	5	20	1	6	23	1	8	4⅜
xv	1	5	0	1	6	2⅛	1	7	6⅞
xiiij ob	1	4	4	1	5	5¼	1	6	8½
xiiij	1	3	8	1	4	8⅜	1	5	10⅞
xiij ob	1	2	12	1	3	11½	1	4	13⅛
xiij	1	1	16	1	2	14⅝	1	3	15¼
xij ob	1	0	20	1	1	17¾	1	2	17½
xij	1	0	0	1	0	20⅞	1	1	19⅝
xj ob	0	19	4	1	0	0	1	0	21⅞
xj	0	18	8	0	19	3⅛	1	0	0
x ob	0	17	12	0	18	6¼	0	19	2⅛
x	0	16	16	0	17	9⅜	0	18	4⅜
ix ob	0	15	20	0	16	12½	0	17	6⅞
ix	0	15	0	0	15	15⅝	0	16	8½
viij ob	0	14	4	0	14	18¾	0	15	10⅞
viij	0	13	8	0	13	21⅞	0	14	13⅛
vij ob	0	12	12	0	13	1	0	13	15¼
vij	0	11	16	0	12	4⅛	0	12	17½
vj ob	0	10	20	0	11	7¼	0	11	19⅝
vj	0	10	0	0	10	10⅜	0	10	21⅞
v ob	0	9	4	0	9	13⅝	0	10	0
v	0	8	8	0	8	16¾	0	9	2⅛
iiij ob	0	7	12	0	7	19⅞	0	8	4⅜
iiij	0	6	16	0	6	23	0	7	6⅞
iij ob	0	5	20	0	6	2⅛	0	6	8½
iij	0	5	0	0	5	5¼	0	5	10⅞
ij ob	0	4	4	0	4	8⅜	0	4	13⅛
ij	0	3	8	0	3	11½	0	3	5¼
j ob	0	2	12	0	2	14⅝	0	2	17½
j	0	1	16	0	1	17¾	0	1	19⅝
ob	0	0	20	0	0	20⅞	0	0	21⅞

	x d. ℔ ß			x d. ℔			ix d. ℔ ß		
Wo.	oz	dt.	gr.	oz	dt	gr	oz	dt.	gr.
j oz.	1	18	2⅛	2	0	0	2	2	2½
xix ß	1	17	3⅜	1	19	0	2	1	1¼
xix	1	16	6⅝	1	18	0	2	0	0
xviij ß	1	15	5¾	1	17	0	1	18	22¾
xviij	1	14	6⅞	1	16	0	1	17	21½
xvij ß	1	13	8	1	15	0	1	16	20¼
xvij	1	12	9⅛	1	14	0	1	15	19
xvj ß	1	11	10¼	1	13	0	1	14	17⅝
xvj	1	10	11¾	1	12	0	1	13	16⅜
xv ß	1	9	12⅝	1	11	0	1	12	15⅛
xv	1	8	13¾	1	10	0	1	11	13⅞
xiiij ß	1	7	14⅞	1	9	0	1	10	12⅝
xiiij	1	6	16	1	8	0	1	9	11⅜
xiij ß	1	5	17⅛	1	7	0	1	8	10⅛
xiij	1	4	18¼	1	6	0	1	7	8⅞
xij ß	1	3	19⅜	1	5	0	1	6	7⅝
xij	1	2	20⅝	1	4	0	1	5	6⅜
xj ß	1	1	21¾	1	3	0	1	4	5
xj	1	0	22⅞	1	2	0	1	3	3¾
x ß	1	0	0	1	1	0	1	2	2½
x	0	19	1⅛	1	0	0	1	1	1¼
ix ß	0	18	2¼	0	19	0	1	0	0
ix	0	17	3⅜	0	18	0	0	18	22¾
viij ß	0	16	6⅝	0	17	0	0	17	21½
viij	0	15	5¾	0	16	0	0	10	20¼
vij ß	0	14	6⅞	0	15	0	0	15	19
vij	0	13	8	0	14	0	0	14	17⅝
vj ß	0	12	9⅛	0	13	0	0	13	10⅜
vj	0	11	10¼	0	12	0	0	12	15⅛
v ß	0	10	11⅜	0	11	0	0	11	13⅞
v	0	9	12⅝	0	10	0	0	10	12⅝
iiij ß	0	8	13¾	0	9	0	0	9	11⅜
iiij	0	7	14⅞	0	8	0	0	8	10⅛
iij ß	0	6	16	0	7	0	0	7	8⅞
iij	0	5	17⅛	0	6	0	0	6	7⅝
ij ß	0	4	18¼	0	5	0	0	5	6⅜
ij	0	3	19⅜	0	4	0	0	4	5
j ß	0	2	20⅝	0	3	0	0	3	3¾
j	0	1	21¾	0	2	0	0	2	2½
ß	0	0	22⅞	0	1	0	0	1	1¼

	ix d/lb			viij d/lb ob			viij d/lb		
Wo.	oz.	dt.	gr.	oz	dt.	gr.	oz	dt.	gr.
j oz.	2	4	10 5/8	2	7	1 3/4	2	10	0
xix ob	2	3	8	2	5	21 1/8	2	8	18
xix	2	2	5 3/8	2	4	17	2	7	12
xviij ob	2	1	2 5/8	2	2	8 3/4	2	6	6
xviij	2	0	0	2	3	12 1/2	2	5	0
xvij ob	1	18	21 3/8	2	1	4 1/4	2	3	18
xvij	1	17	18 5/8	2	0	0	2	2	12
xvj ob	1	16	16	1	18	19 3/4	2	1	6
xvj	1	15	13 3/8	1	17	15 1/2	2	0	0
xv ob	1	14	10 5/8	1	16	11 3/8	1	18	18
xv	1	13	8	1	15	7 1/2	1	17	12
xiiij ob	1	12	5 3/8	1	14	2 7/8	1	16	6
xiiij	1	11	2 5/8	1	12	22 5/8	1	15	0
xiij ob	1	10	0	1	11	18 3/8	1	13	18
xiij	1	8	21 3/8	1	10	14 1/8	1	12	12
xij ob	1	7	18 5/8	1	9	9 7/8	1	11	6
xij	1	6	16	1	8	5 5/8	1	10	0
xj ob	1	5	13 3/8	1	7	1 2/8	1	8	18
xj	1	4	10 5/8	1	5	21 1/8	1	7	12
x ob	1	3	8	1	4	17	1	6	6
x	1	2	5 3/8	1	3	12 3/4	1	5	0
ix ob	1	1	2 5/8	1	2	8 1/2	1	3	18
ix	1	0	0	1	1	4 1/4	1	2	12
viij ob	0	8	21 3/8	1	0	0	1	1	6
viij	0	17	18 5/8	0	18	19 3/4	1	0	0
vij ob	0	16	16	0	17	15 1/2	0	18	8
vij	0	15	13 3/8	0	16	11 3/8	0	17	12
vj ob	0	14	10 5/8	0	15	7 1/2	0	16	6
vj	0	13	8	0	14	2 7/8	0	15	0
v ob	0	12	5 3/8	0	12	22 5/8	0	13	18
v	0	11	2 5/8	0	11	18 3/8	0	12	12
iiij ob	0	10	0	0	10	14 1/8	0	11	6
iiij	0	8	21 3/8	0	9	9 7/8	0	10	0
iij ob	0	7	18 5/8	0	8	5 5/8	0	8	18
iij	0	6	16	0	7	1 3/8	0	7	12
ij ob	0	5	13 3/8	0	5	21 1/8	0	6	6
ij	0	4	10 5/8	0	4	17	0	5	0
j ob	0	3	8	0	3	12 3/4	0	3	18
j	0	2	5 3/8	0	2	8 1/8	0	2	12
ob	0	1	2 5/8	0	1	4 1/4	0	1	6

	vij d. ob. ob			vij d. ob.			vij d. ob. ob		
W o.	oz	dt.	gr.	oz	dt	gr.	oz	dt.	gr.
j li.	2	13	8	2	17	3¾	3	1	12⅞
xix ob	2	12	0	2	15	17⅛	3	0	0
xix	2	10	16	2	14	6⅞	2	18	11⅛
xviij ob	2	9	8	2	12	20⅝	2	16	22⅛
xviij	2	8	0	2	11	10¼	2	15	9¼
xvij ob	2	6	16	2	10	0	2	13	20¼
xvij	2	5	8	2	8	13¾	2	12	7¾
xvj ob	2	4	0	2	7	3⅜	2	10	18½
xvj	2	2	16	2	5	17⅛	2	9	5½
xv ob	2	1	8	2	4	6⅞	2	7	16⅝
xv	2	0	0	2	2	20⅝	2	6	3¾
xiiij ob	1	18	16	2	1	10¼	2	4	14¾
xiiij	1	17	8	2	0	0	2	3	1⅞
xiij ob	1	16	0	1	18	13¾	2	1	12⅞
xiij	1	14	16	1	17	3⅜	2	0	0
xij ob	1	13	8	1	15	17⅛	1	18	11⅛
xij	1	12	0	1	14	6⅞	1	16	22⅛
xj ob	1	10	16	1	12	20⅝	1	15	9¼
xj	1	9	8	1	11	10¼	1	13	20¼
x ob	1	8	0	1	10	0	1	12	7¾
x	1	6	16	1	8	13¾	1	10	18½
ix ob	1	5	8	1	7	3⅜	1	9	5½
ix	1	4	0	1	5	17⅛	1	7	16⅝
viij ob	1	2	16	1	4	6⅞	1	6	3¾
viij	1	1	8	1	2	20⅝	1	4	14¾
vij ob	1	0	0	1	1	10¼	1	3	1⅞
vij	0	18	10	1	0	0	1	1	12⅞
vj ob	0	17	8	0	18	13¾	1	0	0
vj	0	16	0	0	17	3⅜	0	18	11⅛
v ob	0	14	16	0	15	17⅛	0	16	22⅛
v	0	13	8	0	14	6⅞	0	15	9¼
iiij ob	0	12	0	0	12	20⅝	0	13	20¼
iiij	0	10	16	0	11	10¼	0	12	7¾
iij ob	0	9	8	0	10	0	0	10	18½
iij	0	8	0	0	8	13¾	0	9	5½
ij ob	0	6	16	0	7	3⅜	0	7	16⅝
ij	0	5	8	0	5	17⅛	0	6	3¾
j ob	0	4	0	0	4	6⅞	0	4	14¾
j	0	2	16	0	2	20⅝	0	3	1⅞
ob	0	1	8	0	1	10¼	0	1	12⅞

	vj ſh			v ſh ob			v ſh		
o.	oz	dt.	gr.	oz	dt.	gr.	oz	dt.	gr
j oz	3	6	16	3	12	$17\frac{1}{2}$	4	0	0
xix ob	3	5	0	3	10	$21\frac{7}{8}$	3	18	0
xix	3	3	8	3	9	$2\frac{1}{4}$	3	16	0
xviij ob	3	1	16	3	7	$6\frac{1}{2}$	3	14	0
xviij	3	0	0	3	5	$10\frac{7}{8}$	3	12	0
xvij ob	2	18	8	3	3	$15\frac{1}{4}$	3	10	0
xvij	2	16	16	3	1	$19\frac{5}{8}$	3	8	0
xvj ob	2	15	0	3	0	0	3	6	0
xvj	2	13	8	2	18	$4\frac{3}{8}$	3	4	0
xv ob	2	11	16	2	16	$8\frac{3}{4}$	3	2	0
xv	2	10	0	2	14	$13\frac{1}{8}$	3	0	0
xiiij ob	2	8	8	2	12	$17\frac{1}{2}$	2	18	0
xiiij	2	6	16	2	10	$21\frac{7}{8}$	2	16	0
xiij ob	2	5	0	2	9	$2\frac{1}{4}$	2	14	0
xiij	2	3	8	2	7	$6\frac{1}{2}$	2	12	0
xij ob	2	1	16	2	5	$10\frac{7}{8}$	2	10	0
xij	2	0	0	2	3	$15\frac{1}{4}$	2	8	0
xj ob	1	18	8	2	1	$19\frac{5}{8}$	2	6	0
xj	1	16	16	2	0	0	2	4	0
x ob	1	15	0	1	18	$4\frac{3}{8}$	2	2	0
x	1	13	8	1	16	$8\frac{3}{4}$	2	0	0
ix ob	1	11	16	1	14	$13\frac{1}{8}$	1	18	0
ix	1	10	0	1	12	$17\frac{1}{2}$	1	16	0
viij ob	1	8	8	1	10	$21\frac{7}{8}$	1	14	0
viij	1	6	16	1	9	$2\frac{1}{4}$	1	12	0
vij ob	1	5	0	1	7	$6\frac{1}{2}$	1	10	0
vij	1	3	8	1	5	$10\frac{7}{8}$	1	8	0
vj ob	1	1	16	1	3	$15\frac{1}{4}$	1	6	0
vj	1	0	0	1	1	$19\frac{5}{8}$	1	4	0
v ob	0	18	8	1	0	0	1	2	0
v	0	16	16	0	18	$4\frac{3}{8}$	1	0	0
iiij ob	0	15	0	0	16	$8\frac{3}{4}$	0	18	0
iiij	0	13	8	0	14	$13\frac{1}{8}$	0	16	0
iij ob	0	11	16	0	12	$17\frac{1}{2}$	0	14	0
iij	0	10	0	0	10	$21\frac{7}{8}$	0	12	0
ij ob	0	8	8	0	9	$2\frac{1}{4}$	0	10	0
ij	0	6	16	0	7	$6\frac{1}{2}$	0	8	0
j ob	0	5	0	0	5	$10\frac{7}{8}$	0	6	0
j	0	3	8	0	3	$15\frac{1}{4}$	0	4	0
ob	0	1	16	0	1	$19\frac{5}{8}$	0	2	0

	iiij d. ob			iiij d.			iij d. ob		
Wo.	oz	dt.	gr.	oz	dt	gr.	oz	dt	gr.
j oz.	4	8	21 3/8	5	0	0	5	14	6 7/8
xix ob	4	6	16	4	17	12	5	11	10 1/4
xix	4	4	10 5/8	4	15	0	5	8	13 3/4
xviij ob	4	2	5 3/8	4	12	12	5	5	17 1/8
xviij	4	0	0	4	10	0	5	2	20 5/8
xvij ob	3	17	18 5/8	4	7	12	5	0	0
xvij	3	15	13 3/8	4	5	0	4	17	3 3/8
xvj ob	3	13	8	4	2	12	4	14	6 7/8
xvj	3	11	2 5/8	4	0	0	4	11	10 1/4
xv ob	3	8	21 3/8	3	17	12	4	8	13 3/4
xv	3	6	16	3	15	0	4	5	17 1/8
xiiij ob	3	4	10 5/8	3	12	12	4	2	20 5/8
xiiij	3	2	5 3/8	3	10	0	4	0	0
xiij ob	3	0	0	3	7	12	3	17	3 3/8
xiij	2	17	18 5/8	3	5	0	3	14	6 7/8
xij ob	2	15	13 3/8	3	2	12	3	11	10 1/4
xij	2	13	8	3	0	0	3	8	13 3/4
xj ob	2	11	2 5/8	2	17	12	3	5	17 1/8
xj	2	8	21 3/8	2	15	9	3	2	20 5/8
x ob	2	6	16	2	12	12	3	0	0
x	2	4	10 5/8	2	10	0	2	17	3 3/8
ix ob	2	2	5 3/8	2	7	12	2	14	6 7/8
ix	2	0	0	2	5	0	2	11	10 1/4
viij ob	1	17	18 5/8	2	2	12	2	8	13 3/4
viij	1	15	13 3/8	2	0	0	2	5	17 1/8
vij ob	1	13	8	1	17	12	2	2	20 5/8
vij	1	11	2 5/8	1	15	0	2	0	0
vj ob	1	8	21 3/8	1	12	12	1	17	3 3/8
vj	1	6	16	1	10	9	1	14	6 7/8
v ob	1	4	10 5/8	1	7	12	1	11	10 1/4
v	1	2	5 3/8	1	5	0	1	8	13 3/4
iiij ob	1	0	0	1	2	12	1	5	17 1/8
iiij	0	17	18 5/8	1	0	0	1	2	20 5/8
iij ob	0	15	13 3/8	0	17	12	1	0	0
iij	0	13	8	0	15	0	0	17	3 3/8
ij ob	0	11	2 5/8	0	12	12	0	14	6 7/8
ij	0	8	21 3/8	0	10	0	0	11	10 1/4
j ob	0	6	16	0	7	12	0	8	13 3/4
j	0	4	10 5/8	0	5	0	0	5	17 1/8
ob	0	2	5 3/8	0	2	12	0	2	20 5/8

	iij dw			ij dw ob			ij dw		
Wo.	oz	dt.	gr.	oz	dt.	gr.	oz	dt.	gr
j oz.	6	13	8	8	0	0	10	0	0
xix ob	6	10	0	7	16	0	9	15	0
xix	6	6	16	7	12	0	9	10	0
xviij ob	6	3	8	7	8	0	9	5	0
xviij	6	0	0	7	4	0	9	0	0
xvij ob	5	16	16	7	0	0	8	15	0
xvij	5	13	8	6	16	0	8	10	0
xvj ob	5	10	0	6	12	0	8	5	0
xvj	5	6	16	6	8	0	8	0	0
xv ob	5	3	8	6	4	0	7	15	0
xv	5	0	0	6	0	0	7	10	0
xiiij ob	4	16	16	5	16	0	7	5	0
xiiij	4	13	8	5	12	0	7	0	0
xiij ob	4	10	0	5	8	0	6	15	0
xiij	4	6	16	5	4	0	6	10	0
xij ob	4	3	8	5	0	0	6	5	0
xij	4	0	0	4	16	0	6	0	0
xj ob	3	16	16	4	12	0	5	15	0
xj	3	13	8	4	8	0	5	10	0
x ob	3	10	0	4	4	0	5	5	0
x	3	6	16	4	0	0	5	0	0
ix ob	3	3	8	3	16	0	4	15	0
ix	3	0	0	3	12	0	4	10	0
viij ob	2	16	16	3	8	0	4	5	0
viij	2	13	8	3	4	0	4	0	0
vij ob	2	10	0	3	0	0	3	15	0
vij	2	6	16	2	16	0	3	10	0
vj ob	2	3	8	2	12	0	3	5	0
vj	2	0	0	2	8	0	3	0	0
v ob	1	16	16	2	4	0	2	15	0
v	1	13	8	2	0	0	2	10	0
iiij ob	1	10	0	1	16	0	2	5	0
iiij	1	6	16	1	12	0	2	0	0
iij ob	1	3	8	1	8	0	1	15	0
iij	1	0	0	1	4	0	1	10	0
ij ob	0	16	16	1	0	0	1	5	0
ij	0	13	8	0	16	0	1	0	0
j ob	0	10	0	0	12	0	0	15	0
j	0	6	16	0	8	0	0	10	0
ob	0	3	8	0	4	0	0	5	0

	j d ob			j d			ob		
Wo.	oz.	dt.	gr.	oz	dt.	gr.	oz	dt.	gr.
j oz.	13	6	16	20	0	0	40	0	0
xix ob	13	0	0	19	10	0	39	0	0
xix	12	13	8	19	0	0	38	0	0
xviij ob	12	6	16	18	10	0	37	0	0
xviij	12	0	0	18	0	0	36	0	0
xvij ob	11	13	8	17	10	0	35	0	0
xvij	11	6	16	17	0	0	34	0	0
xvj ob	11	0	0	16	10	0	33	0	0
xvj	10	13	8	16	0	0	32	0	0
xv ob	10	6	16	15	10	0	31	0	0
xv	10	0	0	15	0	0	30	0	0
xiiij ob	9	13	8	14	10	0	29	0	0
xiiij	9	6	16	14	0	0	28	0	0
xiij ob	9	0	0	13	10	0	27	0	0
xiij	8	13	8	13	0	0	26	0	0
xij ob	8	6	16	12	10	0	25	0	0
xij	8	0	0	12	0	0	24	0	0
xj ob	7	13	8	11	10	0	23	0	0
xj	7	6	16	11	0	0	22	0	0
x ob	7	0	0	10	10	0	21	0	0
x	6	13	8	10	0	0	20	0	0
ix ob	6	6	16	9	10	0	19	0	0
ix	6	0	0	9	0	0	18	0	0
viij ob	5	13	8	8	10	0	17	0	0
viij	5	6	16	8	0	0	16	0	0
vij ob	5	0	0	7	10	0	15	0	0
vij	4	13	8	7	0	0	14	0	0
vj ob	4	6	16	6	10	0	13	0	0
vj	4	0	0	6	0	0	12	0	0
v ob	3	13	8	5	10	0	11	0	0
v	3	6	16	5	0	0	10	0	0
iiij ob	3	0	0	4	10	0	9	0	0
iiij	2	13	8	4	0	0	8	0	0
iij ob	2	6	16	3	10	0	7	0	0
iij	2	0	0	3	0	0	6	0	0
ij ob	1	13	8	2	10	0	5	0	0
ij	1	6	16	2	0	0	4	0	0
j ob	1	0	0	1	10	0	3	0	0
j	0	13	8	1	0	0	2	0	0
ob	0	6	16	0	10	0	1	0	0

Uſe of the SILVER TABLES.

The reports of ſilver better than ſtandard are at the top of the page, and thoſe which are worſe from 1 oz. to one ½ dwt. on the ſide, and where they meet is found, how much of the better is to be added to one ounce of the worſe to make it ſtandard.

Thus if the ſilver you are to ſtandard with is ꝯvj dwt. Br. and that to be made ſtandard is ꝯj ob dwt. Wo. the table ſhews 14 dwt. 9 gr. will do it, if j oz. Wo. it will require 1 oz. 5 dwt. and if j oz. ꝯj ob dwt. Wo. the above quantities of 14 dwt. 9 gr. added to 1 oz. 5 dwt. or 1 oz. 19 dwt. 9 gr. is what muſt be added of the better to 1 oz. of the worſe to make it ſtandard, and ſo of any other.

If there are three or more different ingots melted together, all of them worſe, as ſuppoſe ꝯviij dwt. ꝯiij dwt. and v ob dwt. the table will ſhew what quantity of any aſſigned fineneſs which is better; as for inſtance ꝯiij ob dwt. Br. is to be added to one oz. of the melted maſs to make it ſtandard; thus ꝯviij dwt. Wo. requires 1 oz. 16 dwt. 16 gr. the ꝯiij dwt. Wo. requires 19 dwt. 6¼ gr. the v ob Wo. 8 dwt. 3½ gr. and being added together it makes 3 oz. 4 dwt. 1¾ gr. muſt be added of ꝯiij Br. to make it ſtandard.

If inſtead of adding ſilver better, in order to ſtandard ſilver that is worſe, if it be required what part of any ingot that is worſe muſt be refined to any given fineneſs to make the remainder ſtandard; a general rule by which it may be performed, is given at the end of the gold tables.

TABLES
OF THE
QUANTITY
OF
GOLD,

From two Carats to one Quarter of a Carat Grain better, to be added to one Ounce of Gold, from a Quarter of a Carat Grain, to two Carats two Grains worſe, to make it Standard.

Wo.		ij car			j car iij¾			j car iij½		
ca.	gr.	oz	dt.	gr.	oz	dt	gr.	oz	dt	gr.
ij	ij	1	5	0	1	5	19⅜	1	6	16
ij	j¾	1	4	9	1	5	3⅞	1	6	0
ij	j½	1	3	18	1	4	12⅜	1	5	8
ij	j¼	1	3	3	1	3	20⅞	1	4	16
ij	j	1	2	12	1	3	5⅜	1	4	0
ij	¾	1	1	21	1	2	13⅞	1	3	8
ij	½	1	1	6	1	1	22½	1	2	16
ij	¼	1	0	15	1	1	7	1	2	0
ij		1	0	0	1	0	15½	1	1	8
j	iij¾	0	19	9	1	0	0	1	0	16
j	iij½	0	18	18	0	19	8½	1	0	0
j	iij¼	0	18	3	0	18	17	0	19	8
j	iij	0	17	12	0	18	1½	0	18	16
j	ij¾	0	16	21	0	17	10⅛	0	18	0
j	ij½	0	16	6	0	16	18⅝	0	17	8
j	ij¼	0	15	15	0	16	3⅛	0	16	16
j	ij	0	15	0	0	15	11⅝	0	16	0
j	j¾	0	14	9	0	14	20⅛	0	15	8
j	j½	0	13	18	0	14	4⅝	0	14	16
j	j¼	0	13	3	0	13	13⅛	0	14	0
j	j	0	12	12	0	12	21⅝	0	13	8
j	¾	0	11	21	0	12	6¾	0	12	16
j	½	0	11	6	0	11	14¾	0	12	0
j	¼	0	10	15	0	10	23¼	0	11	8
j		0	10	0	0	10	7¾	0	10	16
	iij¾	0	9	9	0	9	16¼	0	10	0
	iij½	0	8	18	0	9	0¾	0	9	8
	iij¼	0	8	3	0	8	9¼	0	8	16
	iij	0	7	12	0	7	17⅞	0	8	0
	ij¾	0	6	21	0	7	2⅜	0	7	8
	ij½	0	6	6	0	6	10⅞	0	6	16
	ij¼	0	5	15	0	5	19⅜	0	6	0
	ij	0	5	0	0	5	3⅞	0	5	8
	j¾	0	4	9	0	4	12⅝	0	4	16
	j½	0	3	18	0	3	20⅞	0	4	0
	j¼	0	3	3	0	3	5⅜	0	3	8
	j	0	2	12	0	2	13⅞	0	2	16
	¾	0	1	21	0	1	22⅜	0	2	0
	½	0	1	6	0	1	7	0	1	8
	¼	0	0	15	0	0	15½	0	0	16

Wo.		j car iij ¼			j car iij gr			j car ij ¾		
ca.	gr.	oz.	dt.	gr.	oz	dt	gr.	oz	dt.	gr.
ij	ij	1	7	14⅛	1	8	13¾	1	9	15⅛
ij	j¾	1	6	21½	1	7	20⅛	1	8	21⅜
ij	j½	1	6	5⅝	1	7	3⅜	1	8	3½
ij	j¼	1	5	12⅜	1	6	10¼	1	7	9¾
ij	j	1	4	19⅞	1	5	17⅛	1	6	16
ij	¾	1	4	3¼	1	5	0	1	5	22½
ij	½	1	3	10¾	1	4	6⅞	1	5	4⅜
ij	¼	1	2	18¼	1	3	13¾	1	4	10⅝
ij		1	2	1⅝	1	2	20⅝	1	3	16⅞
j	iij¾	1	1	9⅛	1	2	3⅜	1	2	23⅛
j	iij½	1	0	16½	1	1	10¼	1	2	5⅜
j	iij¼	1	0	0	1	0	17⅛	1	1	11½
j	iij	0	19	7½	1	0	0	1	0	17¾
j	ij¾	0	18	14⅞	0	19	6⅞	1	0	0
j	ij½	0	17	22¼	0	18	13¾	0	19	6¼
j	ij¼	0	17	5¾	0	17	20⅝	0	18	21⅜
j	ij	0	16	13¼	0	17	3¾	0	18	2⅜
j	j¾	0	15	20⅝	0	16	10¼	0	17	0⅞
j	j½	0	15	4²⁄₈	0	15	17⅛	0	16	7⅛
j	j¼	0	14	11½	0	15	0	0	15	13⅛
j	j	0	13	19	0	14	6⅞	0	14	19½
j	¾	0	13	2½	0	13	13¾	0	14	1¾
j	½	0	12	9⅞	0	12	20⅝	0	13	8
j	¼	0	11	17⅜	0	12	3⅜	0	12	14¼
j		0	11	0¾	0	11	10¼	0	11	20⅜
	iij¾	0	10	8¼	0	10	17⅛	0	11	2⅜
	iij½	0	9	15¾	0	10	0	0	10	8⅛
	iij¼	0	8	23⅛	0	9	6⅞	0	9	15⅛
	iij	0	8	6⅝	0	8	13¾	0	8	21⅜
	ij¾	0	7	14⅛	0	7	20⅝	0	8	3½
	ij½	0	6	21½	0	7	3⅜	0	7	9¾
	ij¼	0	6	5	0	6	10¼	0	6	16
	ij	0	5	12⅜	0	5	17⅛	0	5	22¼
	j¾	0	4	19⅞	0	5	0	0	5	4⅜
	j½	0	4	3¼	0	4	6⅞	0	4	10⅝
	j¼	0	3	10¾	0	3	13¾	0	3	16⅞
	j	0	2	18¼	0	2	20⅝	0	2	23⅛
	¾	0	2	1⅝	0	2	3⅜	0	2	5⅜
	½	0	1	9⅛	0	1	10¼	0	1	11½
	¼	0	0	16½	0	0	17⅛	0	0	17¾

Wo.		j car [illegible]			j car ij¼			j car [illegible]		
ca.	gr.	oz	dt.	gr.	oz	dt.	gr.	oz	dt.	gr.
ij	ij	1	10	18½	1	12	9	1	13	8
ij	j¾	1	10	0	1	11	4⅞	1	12	12
ij	j½	1	9	5½	1	10	9⅝	1	11	16
ij	j¼	1	8	11⅛	1	9	14⅜	1	10	20
ij	j	1	7	16⅝	1	8	19¼	1	10	0
ij	¾	1	6	22⅛	1	8	0	1	9	4
ij	½	1	6	3¾	1	7	4⅞	1	8	8
ij	¼	1	5	9¼	1	6	9⅝	1	7	12
ij		1	4	14¾	1	5	14⅜	1	6	16
j	iij¾	1	3	20¼	1	4	19¼	1	5	20
j	iij½	1	3	1⅞	1	4	0	1	5	0
j	iij¼	1	2	7⅜	1	3	4⅞	1	4	4
j	iij	1	1	12⅞	1	2	9⅝	1	3	8
j	ij¾	1	0	18½	1	1	14⅜	1	2	12
j	ij½	1	0	0	1	0	19¼	1	1	16
j	ij¼	0	19	5½	1	0	0	1	0	20
j	ij	0	18	11⅛	0	19	4⅞	1	0	0
j	j¾	0	17	16⅝	0	18	9⅝	0	19	4
j	j½	0	16	22⅛	0	17	14⅜	0	18	8
j	j¼	0	16	3¾	0	16	19¼	0	17	12
j	j	0	15	9¼	0	16	0	0	16	16
j	¾	0	14	14¾	0	15	4⅞	0	15	20
j	½	0	13	20¼	0	14	9⅝	0	15	0
j	¼	0	13	1⅞	0	13	14⅜	0	14	4
j		0	12	7⅜	0	12	19¼	0	13	8
	iij¾	0	11	12⅞	0	12	0	0	12	12
	iij½	0	10	18½	0	11	4⅞	0	11	16
	iij¼	0	10	0	0	10	9⅝	0	10	20
	iij	0	9	5½	0	9	14⅜	0	10	0
	ij¾	0	8	11⅛	0	8	19¼	0	9	4
	ij½	0	7	16⅝	0	8	0	0	8	8
	ij¼	0	6	22⅛	0	7	4⅞	0	7	12
	ij	0	6	3¾	0	6	9⅝	0	6	16
	j¾	0	5	9¼	0	5	14⅜	0	5	20
	j½	0	4	14¼	0	4	19¼	0	5	0
	j¼	0	3	20¼	0	4	0	0	4	4
	j	0	3	1⅞	0	3	4⅞	0	3	8
	¾	0	2	7⅜	0	2	9⅝	0	2	12
	½	0	1	12⅞	0	1	14⅜	0	1	16
	¼	0	0	18⅛	0	0	19¼	0	0	20

Wo.		j car j ¾			j car j ½			j car j ¼		
ca.	gr.	oz	dt.	gr.	oz	dt.	gr.	oz	dt.	gr.
ij	ij	1	14	18¾	1	16	8⅛	1	18	2⅛
ij	j¾	1	13	21⅞	1	15	10⅞	1	17	3⅜
ij	j½	1	13	1	1	14	13⅛	1	16	6⅝
ij	j¼	1	12	4⅛	1	13	15¼	1	15	5¾
ij	j	1	11	7¼	1	12	17½	1	14	6⅞
ij	¾	1	10	10⅜	1	11	19⅝	1	13	8
ij	½	1	9	13⅝	1	10	21⅞	1	12	9⅛
ij	¼	1	8	16¾	1	10	0	1	11	10¼
ij		1	7	19⅞	1	9	2⅛	1	10	11¾
j	iij¾	1	6	23	1	8	4⅜	1	9	12⅝
j	iij½	1	6	2⅛	1	7	6⅞	1	8	13¾
j	iij¼	1	5	5¼	1	6	8½	1	7	14⅞
j	iij	1	4	8⅜	1	5	10⅞	1	6	16
j	ij¾	1	3	11½	1	4	13⅛	1	5	17⅛
j	ij½	1	2	14⅝	1	3	15¼	1	4	18¼
j	ij¼	1	1	17¾	1	2	17½	1	3	19⅜
j	ij	1	0	20⅞	1	1	19⅝	1	2	20⅝
j	j¾	1	0	0	1	0	21⅞	1	1	21¾
j	j½	0	19	3⅛	1	0	0	1	0	22⅞
j	j¼	0	18	6¼	0	19	2⅛	1	0	0
j	j	0	17	9⅜	0	18	4⅜	0	19	1⅛
j	¾	0	16	12½	0	17	6⅞	0	18	2¼
j	½	0	15	15⅝	0	16	8½	0	17	3⅜
j	¼	0	14	18¾	0	15	10⅞	0	16	6⅝
j		0	13	21⅞	0	14	13⅛	0	15	5¾
	iij¾	0	13	1	0	13	15¼	0	14	6⅞
	iij½	0	12	4⅛	0	12	17½	0	13	8
	iij¼	0	11	7¼	0	11	19⅝	0	12	9⅛
	iij	0	10	10⅜	0	10	21⅞	0	11	10¼
	ij¾	0	9	13⅝	0	10	0	0	10	11⅜
	ij½	0	8	16¾	0	9	2⅛	0	9	12⅝
	ij¼	0	7	19⅞	0	8	4⅜	0	8	13¾
	ij	0	6	23	0	7	6⅞	0	7	14⅞
	j¾	0	6	2⅛	0	6	8½	0	6	16
	j½	0	5	5¼	0	5	10⅞	0	5	17⅛
	j¼	0	4	8⅜	0	4	13⅛	0	4	18¼
	j	0	3	11½	0	3	15¼	0	3	19⅜
	¾	0	2	14⅝	0	2	17½	0	2	20⅝
	½	0	1	17¾	0	1	19⅝	0	1	21¾
	¼	0	0	20⅞	0	0	21⅞	0	0	22⅞

Wo.		j car j gr			j car 0¾			j car 0½		
ca.	gr.	oz	dt.	gr	oz	dt.	gr.	oz	dt.	gr.
ij	ij	2	0	0	2	2	2½	2	4	10⅝
ij	j¾	1	19	0	2	1	1¼	2	3	8
ij	j½	1	18	0	2	0	0	2	2	5⅜
ij	j¼	1	17	0	1	18	22¾	2	1	2⅝
ij	j	1	16	0	1	17	21½	2	0	0
ij	¾	1	15	0	1	16	20¼	1	18	21⅜
ij	½	1	14	0	1	15	19	1	17	18⅝
ij	¼	1	13	0	1	14	17⅝	1	16	16
ij		1	12	0	1	13	16⅜	1	15	13⅜
j	iij¾	1	11	0	1	12	15⅛	1	14	10⅝
j	iij½	1	10	0	1	11	13⅞	1	13	8
j	iij¼	1	9	0	1	10	12⅝	1	12	5⅜
j	iij	1	8	0	1	9	11⅜	1	11	2⅝
j	ij¾	1	7	0	1	8	10⅛	1	10	0
j	ij½	1	6	0	1	7	8⅞	1	8	21⅜
j	ij¼	1	5	0	1	6	7⅝	1	7	18⅝
j	ij	1	4	0	1	5	6⅜	1	6	16
j	j¾	1	3	0	1	4	5	1	5	13⅜
j	j½	1	2	0	1	3	3¾	1	4	10⅝
j	j¼	1	1	0	1	2	2½	1	3	8
j	j	1	0	0	1	1	1¼	1	2	5⅜
j	¾	0	19	0	1	0	0	1	1	2⅝
j	½	0	18	0	0	18	22¾	1	0	0
j	¼	0	17	0	0	17	21½	0	18	21⅜
j		0	16	0	0	16	20¼	0	17	18⅝
	iij¾	0	15	0	0	15	19	0	16	16
	iij½	0	14	0	0	14	17⅝	0	15	13⅜
	iij¼	0	13	0	0	13	16⅜	0	14	10⅝
	iij	0	12	0	0	12	15⅛	0	13	8
	ij¾	0	11	0	0	11	13⅞	0	12	5⅜
	ij½	0	10	0	0	10	12⅝	0	11	2⅝
	ij¼	0	9	0	0	9	11⅜	0	10	0
	ij	0	8	0	0	8	10⅛	0	8	21⅜
	j¾	0	7	0	0	7	8⅞	0	7	18⅝
	j½	0	6	0	0	6	7⅝	0	6	16
	j¼	0	5	0	0	5	6⅜	0	5	13⅜
	j	0	4	0	0	4	5	0	4	10⅝
	¾	0	3	0	0	3	3¾	0	3	8
	½	0	2	0	0	2	2½	0	2	5⅜
	¼	0	1	0	0	1	1¼	0	1	2⅝

Wa.		j car o¼			j car			iij ¾ gr		
ca.	gr.	oz	dt.	gr.	oz	dt.	gr	oz	dt.	gr.
ij	ij	2	7	1¾	2	10	0	2	13	8
ij	j¾	2	5	21¼	2	8	18	2	12	0
ij	j½	2	4	17	2	7	12	2	10	16
ij	j¼	2	3	12¾	2	6	6	2	9	8
ij	j	2	2	8½	2	5	0	2	8	0
ij	¾	2	1	4¼	2	3	18	2	6	16
ij	½	2	0	0	2	2	12	2	5	8
ij	¼	1	18	19¾	2	1	6	2	4	0
ij		1	17	15½	2	0	0	2	2	16
j	iij¾	1	16	11¾	1	18	18	2	1	8
j	iij½	1	15	7½	1	17	12	2	0	0
j	iij¼	1	14	2⅞	1	16	6	1	18	16
j	iij	1	12	22⅝	1	15	0	1	17	8
j	ij¾	1	11	18⅜	1	13	18	1	16	0
j	ij½	1	10	14⅛	1	12	12	1	14	16
j	ij¼	1	9	9⅞	1	11	6	1	13	8
j	ij	1	8	5⅝	1	10	0	1	12	0
j	j¾	1	7	1⅜	1	8	18	1	10	16
j	j½	1	5	21⅛	1	7	12	1	9	8
j	j¼	1	4	17	1	6	6	1	8	0
j	j	1	3	12¾	1	5	0	1	6	16
j	¾	1	2	8½	1	3	18	1	5	8
j	½	1	1	4¼	1	2	12	1	4	0
j	¼	1	0	0	1	1	6	1	2	16
j		0	18	19¾	1	0	0	1	1	8
	iij¾	0	17	15½	0	18	18	1	0	0
	iij½	0	16	11⅜	0	17	12	0	18	16
	iij¼	0	15	7½	0	10	6	0	17	8
	iij	0	14	2⅞	0	15	0	0	16	0
	ij¾	0	12	22⅝	0	13	18	0	14	16
	ij½	0	11	18⅜	0	12	12	0	13	8
	ij¼	0	10	14⅛	0	11	6	0	12	0
	ij	0	9	9⅞	0	10	0	0	10	16
	j¾	0	8	5⅝	0	8	18	0	9	8
	j½	0	7	1⅜	0	7	12	0	8	0
	j¼	0	5	21⅛	0	6	6	0	6	16
	j	0	4	17	0	5	0	0	5	8
	¾	0	3	12¾	0	3	18	0	4	0
	½	0	2	8½	0	2	12	0	2	16
	¼	0	1	4¼	0	1	6	0	1	8

Wo.		iij ½ gr			iij ¼ gr			iij gr		
ca.	gr.	oz	dt.	gr.	oz	dt.	gr.	oz	dt.	gr.
ij	ij	2	17	3¾	3	1	12⅞	3	6	16
ij	j¾	2	15	17⅛	3	0	0	3	5	0
ij	j½	2	14	6⅞	2	18	11⅛	3	3	8
ij	j¼	2	12	20⅝	2	16	22⅛	3	1	16
ij	j	2	11	10¼	2	15	9¼	3	0	0
ij	¾	2	10	0	2	13	20¼	2	18	8
ij	½	2	8	13¾	2	12	7¾	2	16	16
ij	¼	2	7	3⅜	2	10	18½	2	15	0
ij		2	5	17⅛	2	9	5½	2	13	8
j	iij¾	2	4	6⅞	2	7	16⅝	2	11	16
j	iij½	2	2	20⅝	2	6	3¾	2	10	0
j	iij¼	2	1	10¼	2	4	14¾	2	8	8
j	iij	2	0	0	2	3	1⅞	2	6	16
j	ij¾	1	18	13¾	2	1	12⅞	2	5	0
j	ij½	1	17	3⅜	2	0	0	2	3	8
j	ij¼	1	15	17⅛	1	18	11⅛	2	1	16
j	ij	1	14	6⅞	1	16	22⅛	2	0	0
j	j¾	1	12	20⅝	1	15	9¼	1	18	8
j	j½	1	11	10¼	1	13	20¼	1	16	16
j	j¼	1	10	0	1	12	7¾	1	15	0
j	j	1	8	13¾	1	10	18½	1	13	8
j	¾	1	7	3⅜	1	9	5½	1	11	16
j	½	1	5	17⅛	1	7	16⅝	1	10	0
j	¼	1	4	6⅞	1	6	3¾	1	8	8
j		1	2	20⅝	1	4	14¾	1	6	16
	iij¾	1	1	10¼	1	3	1⅞	1	5	0
	iij½	1	0	0	1	1	12⅞	1	3	8
	iij¼	0	18	13¾	1	0	0	1	1	16
	iij	0	17	3⅜	0	18	11⅛	1	0	0
	ij¾	0	15	17⅛	0	16	22⅛	0	18	8
	ij½	0	14	6⅞	0	15	9¼	0	16	16
	ij¼	0	12	20⅝	0	13	20¼	0	15	0
	ij	0	11	10¼	0	12	7¾	0	13	8
	j¾	0	10	0	0	10	18½	0	11	16
	j½	0	8	13¾	0	9	5½	0	10	0
	j¼	0	7	3⅜	0	7	16⅝	0	8	8
	j	0	5	17⅛	0	6	3¾	0	6	16
	¾	0	4	6⅞	0	4	14¾	0	5	0
	½	0	2	20⅝	0	3	1⅞	0	3	8
	¼	0	1	10¼	0	1	12⅞	0	1	16

Wo.		ij ¾ gr			ij ½ gr			ij ¼ gr		
ca.	gr.	oz	dt.	gr.	oz	dt.	gr	oz	dt.	gr.
ij	ij	3	12	17½	4	0	0	4	8	21⅜
ij	j¾	3	10	21⅞	3	18	0	4	6	16
ij	j½	3	9	2¼	3	16	0	4	4	10⅝
ij	j¼	3	7	6½	3	14	0	4	2	5⅜
ij	j	3	5	10⅞	3	12	0	4	0	0
ij	¾	3	3	15¼	3	10	0	3	17	18⅝
ij	½	3	1	19⅝	3	8	0	3	15	13⅜
ij	¼	3	0	0	3	6	0	3	13	8
ij		2	18	4⅜	3	4	0	3	11	2⅝
j	iij¾	2	16	8¾	3	2	0	3	8	21⅜
j	iij½	2	14	13⅛	3	0	0	3	6	16
j	iij¼	2	12	17½	2	18	0	3	4	10⅝
j	iij	2	10	21⅞	2	16	0	3	2	5⅜
j	ij¾	2	9	2¼	2	14	0	3	0	0
j	ij½	2	7	6½	2	12	0	2	17	18⅝
j	ij¼	2	5	10⅞	2	10	0	2	15	13⅜
j	ij	2	3	15¼	2	8	0	2	13	8
j	j¾	2	1	19⅝	2	6	0	2	11	2⅝
j	j½	2	0	0	2	4	0	2	8	21⅜
j	j¼	1	18	4⅜	2	2	0	2	6	16
j	j	1	16	8¾	2	0	0	2	4	10⅝
j	¾	1	14	13⅛	1	18	0	2	2	5⅜
j	½	1	12	17½	1	16	0	2	0	0
j	¼	1	10	21⅞	1	14	0	1	17	18⅝
j		1	9	2¼	1	12	0	1	15	13⅜
	iij¾	1	7	6½	1	10	0	1	13	8
	iij½	1	5	10⅞	1	8	0	1	11	2⅝
	iij¼	1	3	15¼	1	6	0	1	8	21⅜
	iij	1	1	19⅝	1	4	0	1	6	16
	ij¾	1	0	0	1	2	0	1	4	10⅝
	ij½	0	18	4⅜	1	0	0	1	2	5⅜
	ij¼	0	16	8¾	0	18	0	1	0	0
	ij	0	14	13⅛	0	16	0	0	17	18⅝
	j¾	0	12	17½	0	14	0	0	15	13⅜
	j½	0	10	21⅞	0	12	0	0	13	8
	j¼	0	9	2¼	0	10	0	0	11	2⅝
	j	0	7	6½	0	8	0	0	8	21⅜
	¾	0	5	10⅞	0	6	0	0	6	16
	½	0	3	15¼	0	4	0	0	4	10⅝
	¼	0	1	19⅝	0	2	0	0	2	5⅜

No.		ij gr			i ¾ gr			i ½ gr		
ca.	gr.	oz	dt.	gr.	oz	dt.	gr.	oz	dt.	gr.
ij	ij	5	0	0	5	14	6⅞	6	13	8
ij	j¾	4	17	12	5	11	10¼	6	10	0
ij	j½	4	15	0	5	8	13¾	6	6	16
ij	j¼	4	12	12	5	5	17⅛	6	3	8
ij	j	4	10	0	5	2	20⅝	6	0	0
ij	¾	4	7	12	5	0	0	5	16	16
ij	½	4	5	0	4	17	3⅜	5	13	8
ij	¼	4	2	12	4	14	6⅞	5	10	0
ij		4	0	0	4	11	10¼	5	6	16
j	iij¾	3	17	12	4	8	13¾	5	3	8
j	iij½	3	15	0	4	5	17⅛	5	0	0
j	iij¼	3	12	12	4	2	20⅝	4	16	16
j	iij	3	10	0	4	0	0	4	13	8
j	ij¾	3	7	12	3	17	3⅜	4	10	0
j	ij½	3	5	0	3	14	6⅞	4	6	16
j	ij¼	3	2	12	3	11	10¼	4	3	8
j	ij	3	0	0	3	8	13¾	4	0	0
j	j¾	2	17	12	3	5	17⅛	3	16	16
j	j½	2	15	0	3	2	20⅝	3	13	8
j	j¼	2	12	12	3	0	0	3	10	0
j	j	2	10	0	2	17	3⅜	3	6	16
j	¾	2	7	12	2	14	6⅞	3	3	8
j	½	2	5	0	2	11	10¼	3	0	0
j	¼	2	2	12	2	8	13¾	2	16	16
j		2	0	0	2	5	17⅛	2	13	8
	iij¾	1	17	12	2	2	20⅝	2	10	0
	iij½	1	15	0	2	0	0	2	6	16
	iij¼	1	12	12	1	17	3⅜	2	3	8
	iij	1	10	0	1	14	6⅞	2	0	0
	ij¾	1	7	12	1	11	10¼	1	16	16
	ij½	1	5	0	1	8	13¾	1	13	8
	ij¼	1	2	12	1	5	17⅛	1	10	0
	ij	1	0	0	1	2	20⅝	1	6	16
	j¾	0	17	12	1	0	0	1	3	8
	j½	0	15	0	0	17	3⅜	1	0	0
	j¼	0	12	12	0	14	6⅞	0	16	16
	j	0	10	0	0	11	10¼	0	13	8
	¾	0	7	12	0	8	13¾	0	10	0
	½	0	5	0	0	5	17⅛	0	6	16
	¼	0	2	12	0	2	20⅝	0	3	8

Wo.		j¼ gr			j gr			¾ gr		
ca.	gr.	oz	dt.	gr.	oz	dt.	gr.	oz	dt.	gr.
ij	ij	8	0	0	10	0	0	13	6	16
ij	j¾	7	16	0	9	15	0	13	0	0
ij	j½	7	12	0	9	10	0	12	13	8
ij	j¼	7	8	0	9	5	0	12	6	16
ij	j	7	4	0	9	0	0	12	0	0
ij	¾	7	0	0	8	15	0	11	13	8
ij	½	6	16	0	8	10	0	11	6	16
ij	¼	6	12	0	8	5	0	11	0	0
ij		6	8	0	8	0	0	10	13	8
j	iij¾	6	4	0	7	15	0	10	6	16
j	iij½	6	0	0	7	10	0	10	0	0
j	iii¼	5	16	0	7	5	0	9	13	8
j	iij	5	12	0	7	0	0	9	6	16
j	ij¾	5	8	0	6	15	0	9	0	0
j	ij½	5	4	0	6	10	0	8	13	8
j	ij¼	5	0	0	6	5	0	8	6	16
j	ij	4	16	0	6	0	0	8	0	0
j	j¾	4	12	0	5	15	0	7	13	8
j	j½	4	8	0	5	10	0	7	6	16
j	j¼	4	4	0	5	5	0	7	0	0
j		4	0	0	5	0	0	6	13	8
j	¾	3	16	0	4	15	0	6	6	16
j	½	3	12	0	4	10	0	6	0	0
j	¼	3	8	0	4	5	0	5	13	8
j		3	4	0	4	0	0	5	6	16
	iii¾	3	0	0	3	15	0	5	0	0
	iij½	2	16	0	3	10	0	4	13	8
	iij¼	2	12	0	3	5	0	4	6	16
	iij	2	8	0	3	0	0	4	0	0
	ij¾	2	4	0	2	15	0	3	13	8
	ij½	2	0	0	2	10	0	3	6	16
	ij¼	1	16	0	2	5	0	3	0	0
	ij	1	12	0	2	0	0	2	13	8
	j¾	1	8	0	1	15	0	2	6	16
	j½	1	4	0	1	10	0	2	0	0
	j¼	1	0	0	1	5	0	1	13	8
	j	0	16	0	1	0	0	1	6	16
	¾	0	12	0	0	15	0	1	0	0
	½	0	8	0	0	10	0	0	13	8
	¼	0	4	0	0	5	0	0	6	16

Wo.		½ gr			¼ gr		
ra.	gr.	oz	dt.	gr.	oz	dt.	gr
ij	ij	20	0	0	40	0	0
ij	j¾	19	10	0	39	0	0
ij	j½	19	0	0	38	0	0
ij	j¼	18	10	0	37	0	0
ij	j	18	0	0	36	0	0
ij	¾	17	10	0	35	0	0
ij	½	17	0	0	34	0	0
ij	¼	16	10	0	33	0	0
ij		16	0	0	32	0	0
j	iij¾	15	10	0	31	0	0
j	iij½	15	0	0	30	0	0
j	iij¼	14	10	0	29	0	0
j	iij	14	0	0	28	0	0
j	ij¾	13	10	0	27	0	0
j	ij½	13	0	0	26	0	0
j	ij¼	12	10	0	25	0	0
j	ij	12	0	0	24	0	0
j	j¾	11	10	0	23	0	0
j	j½	11	0	0	22	0	0
j	j¼	10	10	0	21	0	0
j	j	10	0	0	20	0	0
j	¾	9	10	0	19	0	0
j	½	9	0	0	18	0	0
j	¼	8	10	0	17	0	0
j		8	0	0	16	0	0
	iij¾	7	10	0	15	0	0
	iij½	7	0	0	14	0	0
	iij¼	6	10	0	13	0	0
	iij	6	0	0	12	0	0
	ij¾	5	10	0	11	0	0
	ij½	5	0	0	10	0	0
	ij¼	4	10	0	9	0	0
	ij	4	0	0	8	0	0
	j¾	3	10	0	7	0	0
	j½	3	0	0	6	0	0
	j¼	2	10	0	5	0	0
	j	2	0	0	4	0	0
	¾	1	10	0	3	0	0
	½	1	0	0	2	0	0
	¼	0	10	0	1	0	0

Uſe of the GOLD TABLES.

The reports of gold better than ſtandard are at the top of the page, and thoſe which are worſe from 2 car. 2 gr. to ¼ of a carat grain on the ſide, and where they meet is ſeen how much of the better is to be added to one ounce of the worſe to make it ſtandard.

As if the gold you are to uſe in ſtandarding is j. *car.* ij. ss *gr.* Br. and that to be ſtandarded is ij. *car.* worſe; the table ſhews that 1 oz. 10 dwt. 18½ gr. is the quantity required, if it ſhould be j. *car.* ij. *gr.* Wo. it will require 18 dwt. 11⅛ gr. and if iij. *car.* ij. *gr.* Wo. then the above quantities of 1 oz. 10 dwt. 18½ gr. added to 18 dwt. 11⅛ gr. that is 2 oz. 9 dwt. 5⅝ gr. will be the quantity which muſt be added of j. *car.* iij. ss *gr.* Br. to one ounce of the worſe to make it ſtandard.

And if ſeveral different ingots are melted together all of them worſe, as ſuppoſe one Wo. j *car.* iij. ss *gr.* another Wo. ij. *car* ¼ *gr.* and a third Wo. ij. *car.* ij. *gr.* the table will ſhew what quantity of any fineneſs ſpecified that is better; as ſuppoſe ij. *car.* iij. ¾ *gr.* muſt be added to one ounce of the mixture to make it ſtandard; thus j. *car.* iij. ss *gr.* requires 19 dwt. 8½ gr. that of ij. *car.* ¼ *gr.* requires 1 oz. 1 dwt. 7 gr. and that of ij. *car.* ij. *gr.* requires 1 oz. 5 dwt. 19⅜ gr. which being added together makes 3 oz. 6 dwt. 10⅞ gr. which muſt be added of j. *car.* iij ¾ *car.* to make it ſtandard.

If

If ſilver or gold is required to be ſtandarded which is more than j. oz. Wo. in the ſilver, or ij. car. ij. gr. in the gold; as ſuppoſe 2, 3, 4, 5, 6, &c. oz. it is but multiplying the quantity againſt one ounce, by the number of oz. and you have the anſwer, and the ſame for 3, 4, 6, 8, 9, &c. carats in the gold.

We ſhall now give the rule mentioned, p. 126. to find what part of any ingot that is worſe, is to be refined to any determinate fineneſs better, ſo that the remainder may be ſtandard.

If an ingot worſe than ſtandard is required to be made ſuch by refining, the firſt ſilver tables do ſhew how much muſt be fined off of each oz. and in proportion from any ingot according to its weight.

But if inſtead of refining the whole ingot till it be ſtandard, a part of it be taken and made better than ſtandard, in this caſe a greater or a leſſer part of it is requiſite, according to the fineneſs it is required to be brought to, and what this quantity muſt be according to the deſired fineneſs, is found by the following

RULE.

Multiply the weight of the ingot by its report, and this product by the total number of fine parts it is to be of when refined, divide this laſt product by the ſum of the two reports, multiplied

plied into the fine parts in ſtandard, and the quotient is the anſwer.

Example . How much muſt be taken and refined to Br. from a ſilver ingot weighing 486 oz. 10 dwt. Wo. [illegible] that the remainder may be ſtandard. *

```
dwt.     dwt.          oz.  dwt.

222      222           486  10
 14       32½               20
———      ———           ————————
236      444             9730
        666                18½  report of the ingot
dwt.     111           ——————————
18½      ———            175140
14       7215             4865
———                    ——————————
32½ ſum of the         180005          [reduced to
reports]                  236   total fine parts to be
                       ——————————
                       1080030
                       540015
                      360010
                     ———————————— (2|0
          7215)42481180)588|7
                       64061     294 oz.  7 dwt. 21½ gr.
                        63418
                         56980
                          6475
```

The quantity to be fined is 294 oz. 7 dwt. 21½ gr.

---

* See Reynold's tables, page 54, 55.

An ingot of gold weighing 87 oz. 14 dwt. Wo. $\overset{car}{ij}$ what quantity of it muſt be taken from it and fined to $\overset{car}{j}\ \overset{gr}{iij}$ Br, that the remainder may be ſtandard.

car. gr.	cr. gr.	oz. dwt.
88 in ſtan.	88	87 14
7 Br.	15	20
95	1320	1754
		8 report of the ingot
7 Br.		14032
8 Wo.		95 total fine parts
15 ſum of the reports		132|0)133304|0(100|9 $\frac{29}{33}$
		50 oz. 9 dwt. 21 gr. (to be fined

When ſilver better than ſtandard is to be ſtandarded with fine copper, there muſt be 1 grain added to each ounce of ſilver for every ½ dwt. it is better, 2 grains for each dwt. better, and ſo on as in the following table:

Br.	dt.gr.	Br.	dt.gr.	Br.	dt.gr.
xviij	1 12	xij	1 0	vj	0 12
xvij ob	1 11	xj ob	0 23	v ob	0 11
xvij	1 10	xj	0 22	v	0 10
xvj ob	1 9	x ob	0 21	iiij ob	0 9
xvj	1 8	x	0 20	iiij	0 8
xv ob	1 7	ix ob	0 19	iij ob	0 7
xv	1 6	ix	0 18	iij	0 6
xiiij ob	1 5	viij ob	0 17	ij ob	0 5
xiiij	1 4	viij	0 16	ij	0 4
xiij ob	1 3	vij ob	0 15	j ob	0 3
xiij	1 2	vij	0 14	j	0 2
xij ob	1 1	vj ob	0 13	ob	0 1

In like manner when gold that is better is to be ſtandarded with roſe copper, there muſt be 1¼ grain added for each quarter carat grain, 5 gr. for each carat grain, and 20 gr. for each carat that the gold is better, and ſo on in proportion as in the table.*

ca.	gr.	dt.	gr.	ca.	gr.	dt.	gr.	gr.	dt.	gr.
ij		1	16	j	j¼	1	2¼	ij½	0	12½
j	iij¾	1	14¾	j	j	1	1	ij¼	0	11¼
j	iij½	1	13½	j	¾	0	23¾	ij	0	10
j	iij¼	1	12¼	j	½	0	22½	j¾	0	8¾
j	iij	1	11	j	¼	0	21¼	j½	0	7½
j	ij¾	1	9¾	j		0	20	j¼	0	6¼
j	ij½	1	8½		iij¾	0	18¾	j	0	5
j	ij¼	1	7¼		iij½	0	1 ½	¾	0	3¾
j	ij	1	6		iij¼	0	16¼	½	0	2½
j	j¾	1	4¾		iij	0	15	¼	0	1¼
j	j½	1	3½		ij¾	0	13¾			

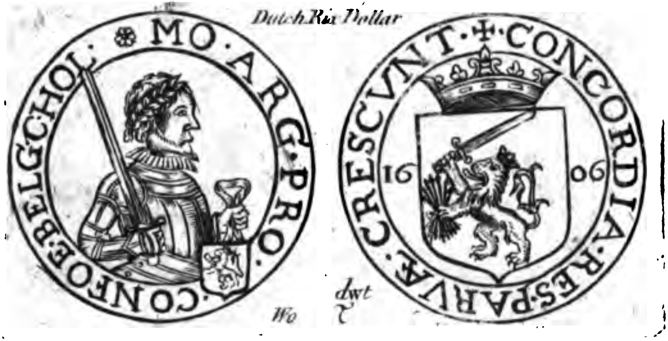
To make this work more uſeful, we have added the figures of ſeveral foreign gold and ſilver coins with their fineneſſes; that is, how much Br. or Wo. than ſtandard, from whence their value per oz. is ſoon obtained, by the tables in p. 49, 50. according to the price ſtandard bears at any particular time.

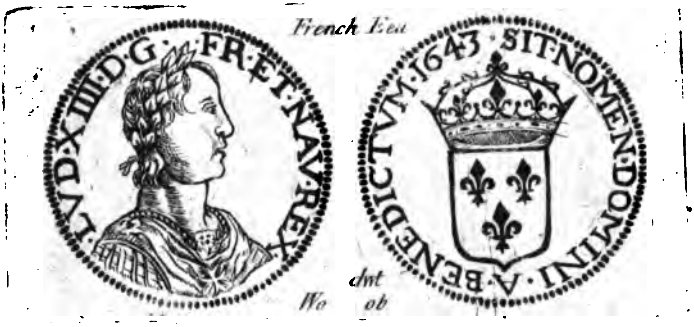
As alſo a ſmall table of the different methods of expreſſing the fineneſs of ſilver abroad, wherein it muſt be obſerved that the Denier is divided into 24 grains, and is uſed in Holland, France, Spain, Portugal and Italy; the Lodig into 18 grains uſed in Germany, the Carat is in uſe only at Venice, the Matt on the coaſt of coromandel, and the Touch in china.

---

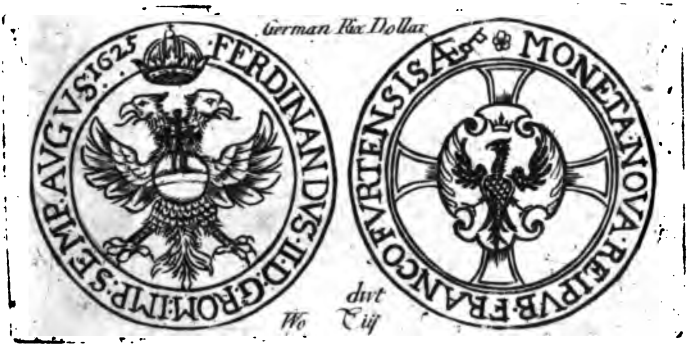
* Experience is the beſt guide what little difference will be occaſioned by waſte in the melting.

A

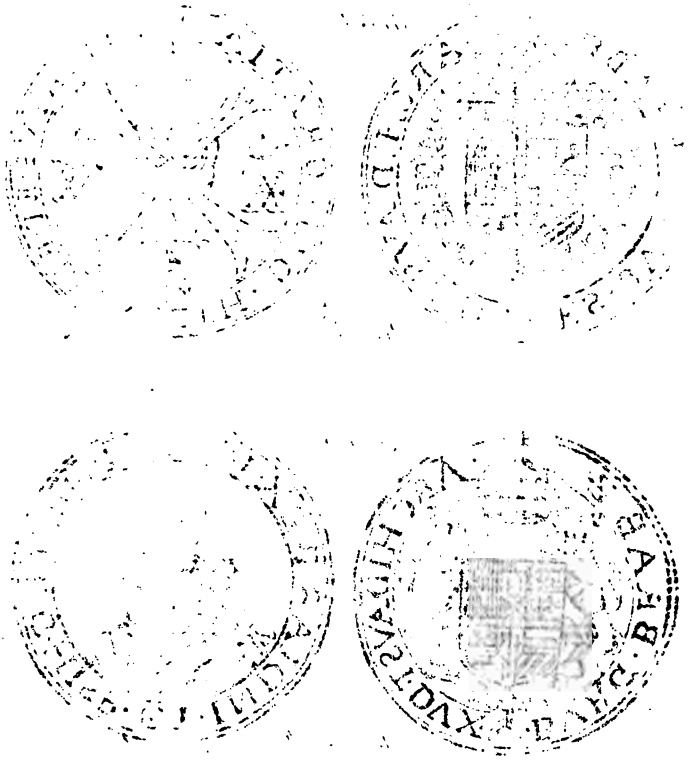

Dutch Rix Dollar


French Ecu

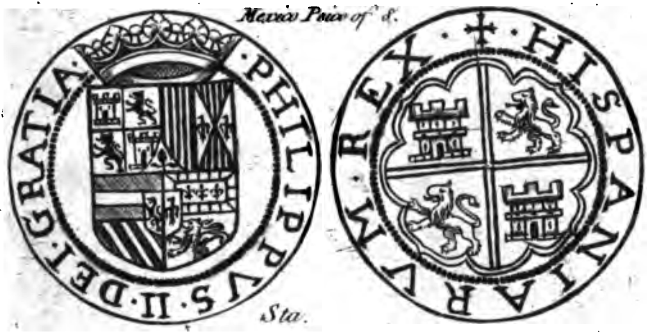
LVD·XIIII·D·G·FR·ET·NAV·REX
1643·SIT·NOMEN·DOMINI·BENEDICTVM·
dwt
Wo ob


German Rix Dollar

FERDINANDVS·II·D·G·ROM·IMP·SEMP·AVGVS·1625
MONETA·NOVA·REIPVB·FRANCOFVRTENSIS·Æ
dwt
Wo ζ iij

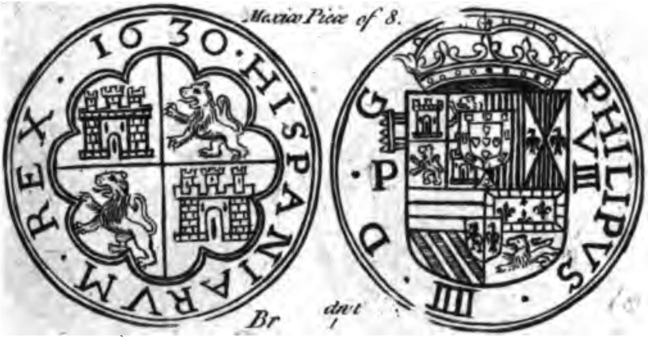


Mexico Piece of 8.



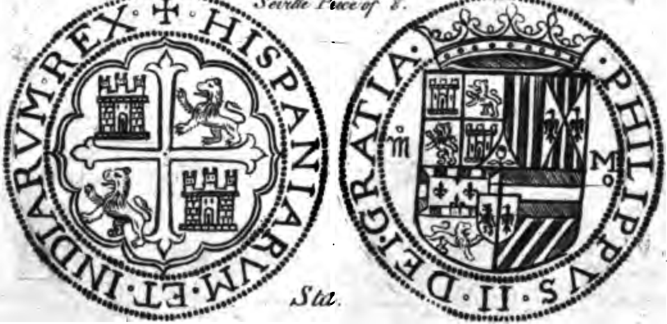
Sta.

Mexico Piece of 8.

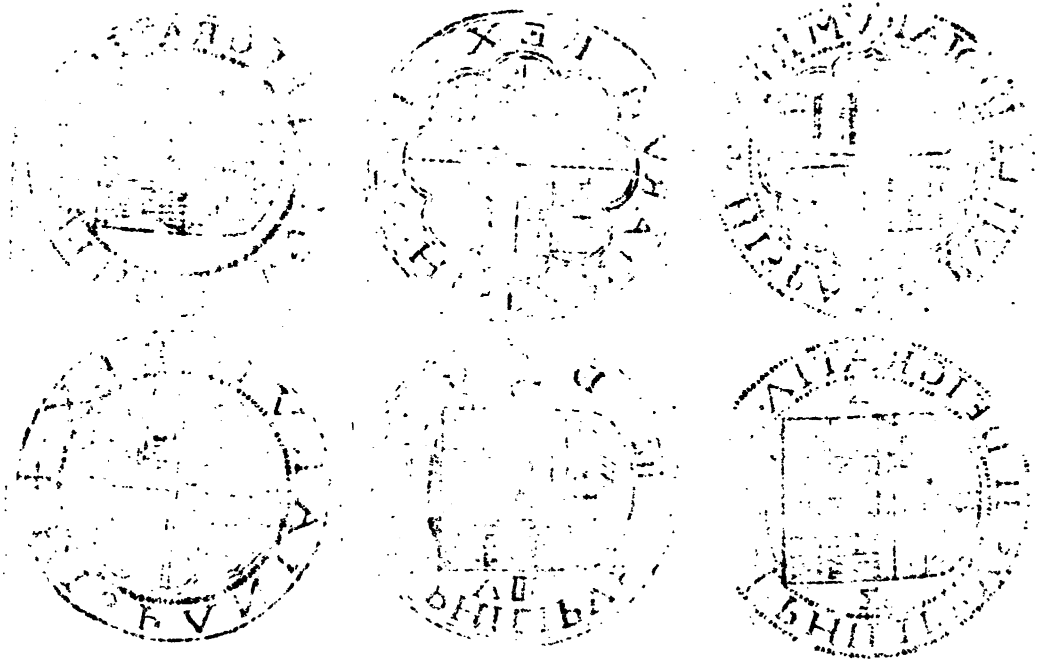


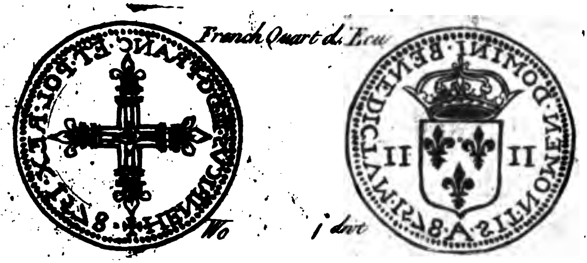
Br dn't

Seville Piece of 8.

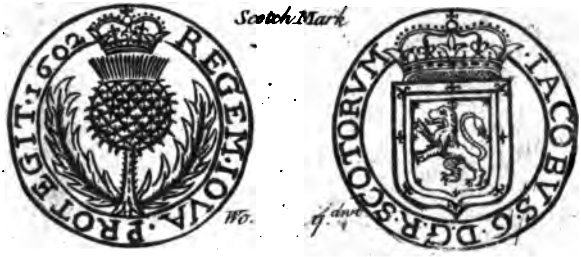


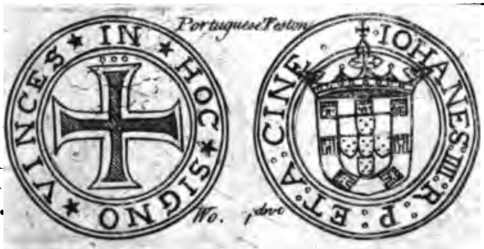
Sta.


REX

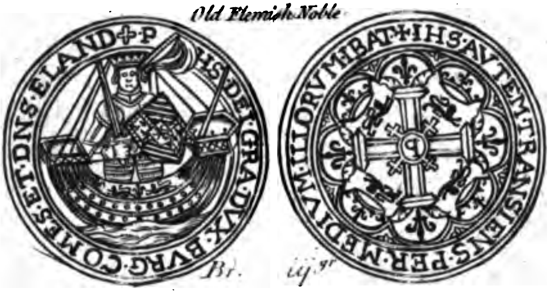

French Quart d. Ecu

HENRICVS·III·D·G·FRANC·ET·POL·REX·1578
SIT·NOMEN·DOMINI·BENEDICTVM·1578·A
II II
Wo
j dwt

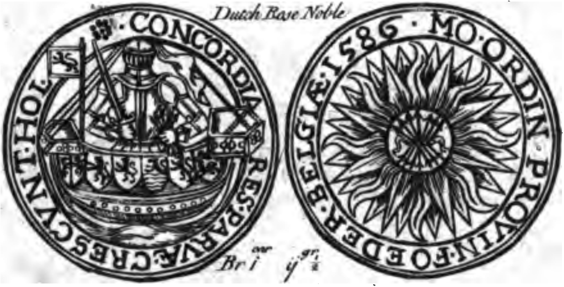

Scotch Mark


Portuguese Teston

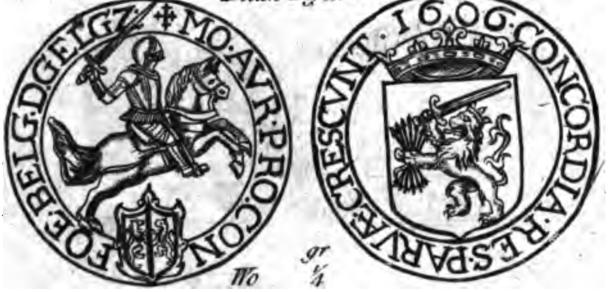
Old Flemish Noble

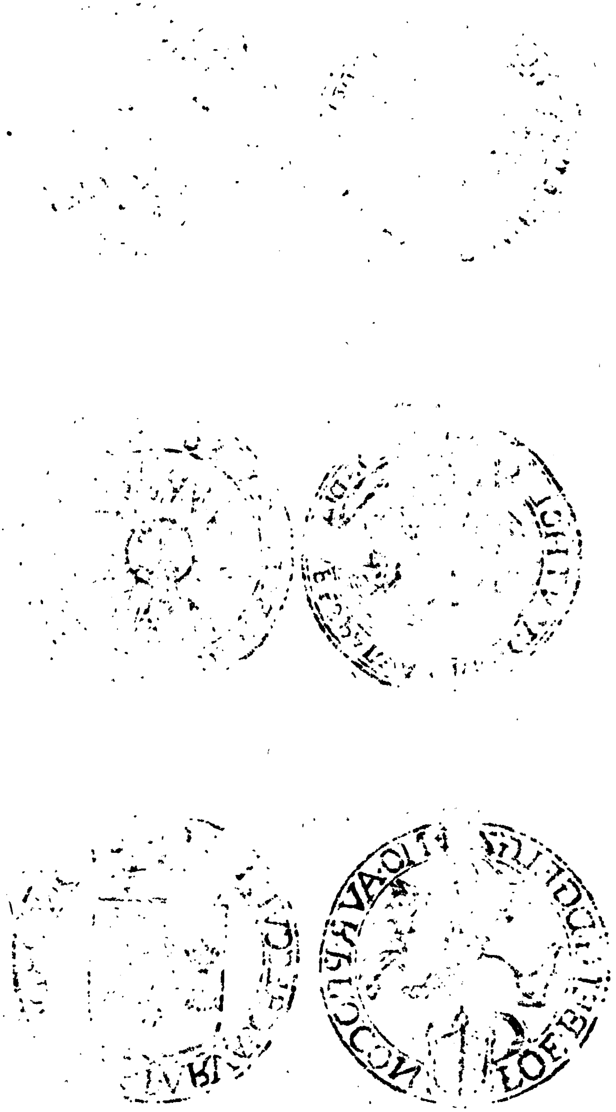

P·HS·DEI·GRA·DVX·BVRG·COMES·ET·DNS·FLAND
IHS·AVTEM·TRANSIENS·PER·MEDIVM·ILLORVM·IBAT
Br. iij gr

Dutch Rose Noble

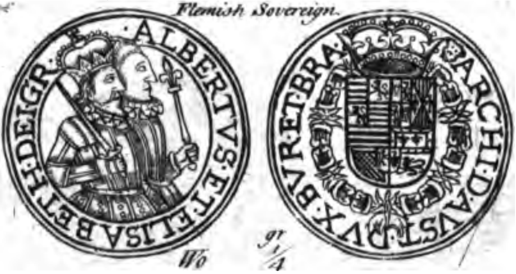

CONCORDIA·RES·PARVÆ·CRESCVNT·HOL
1586·MO·ORDIN·PROVIN·FOEDER·BELGIÆ
Br i ow
ij gr ½

Dutch Ryder


MO·AVR·PRO·CON·FOE·BELG·D·GEL·GZ
1606·CONCORDIA·RES·PARVÆ·CRESCVNT
Wo
gr ¼

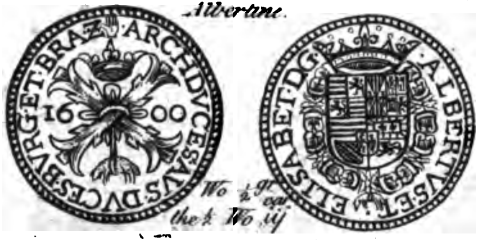


Flemish Sovereign.


ALBERTVS.ET.ELISA BETH.DEI.GR.
ARCHID.AVST.DVX.BVR.ET.BRA.

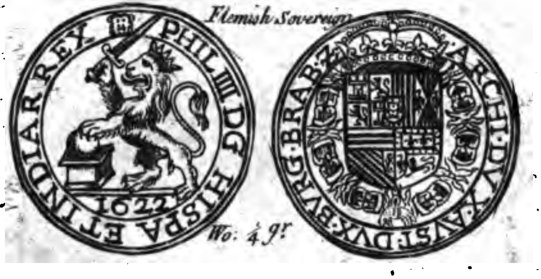
Wo *gr* *1/4*

Albertine.

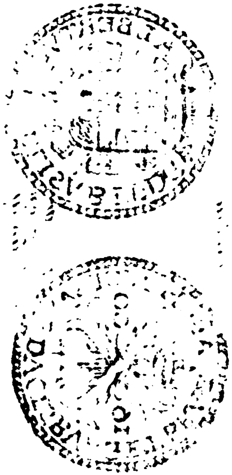

ARCHDVCES.AVS.DVCES.BVRG.ET.BRAZ.
16 00
ALBERTVS.ET.ELISABET.DG.

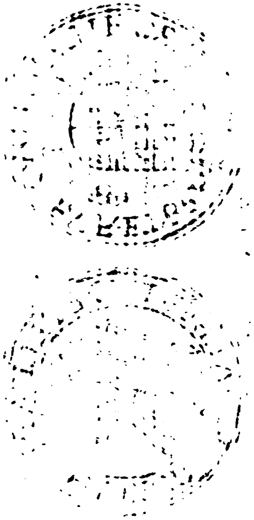
Wo ½ gr ear
the ½ Wo iij

Flemish Sovereign

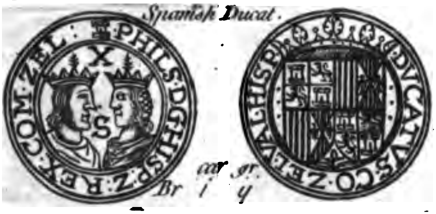

PHIL.IIII.DG.HISPA.ET.INDIAR.REX.
1622
ARCHI.DVX.AVST.DVX.BVRG.BRAB.Z.

Wo: 4 gr

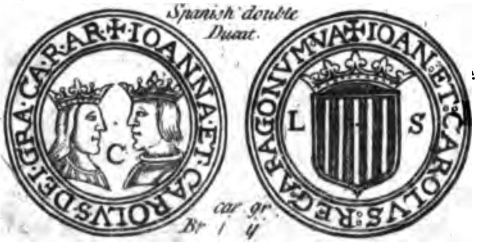




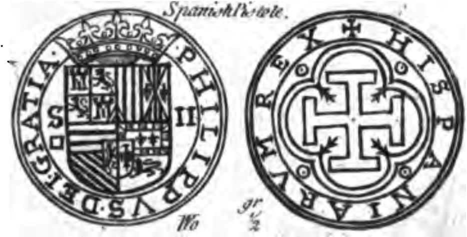
Spanish Ducat.



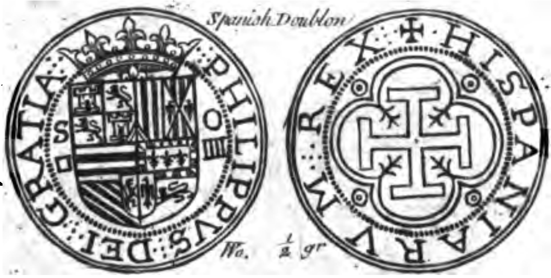
Spanish double Ducat.

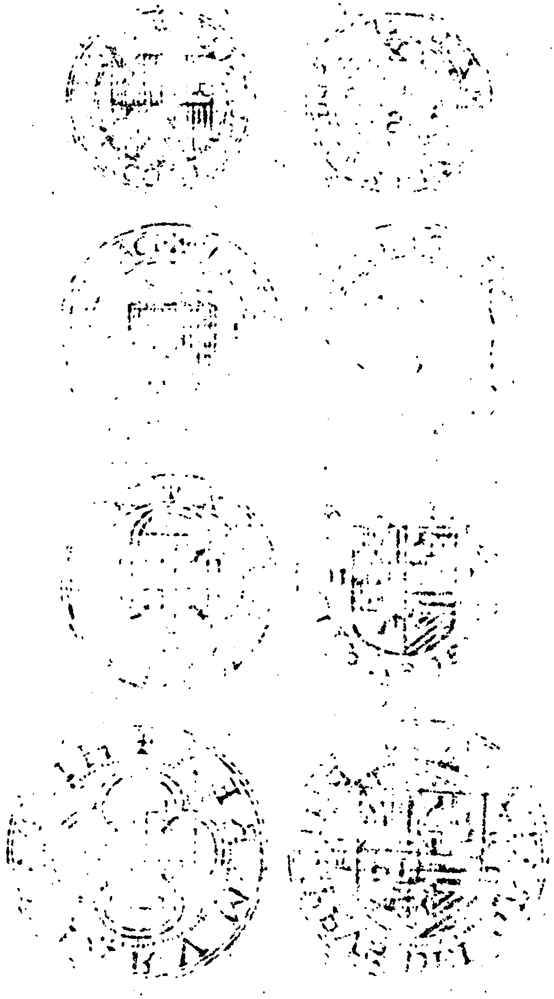

IOANNA·ET·CAROLVS·DEI·GRA·CA·R·AR
C
IOAN·ET·CAROLVS·REG·ARAGONVM·VA
L
S
car gr
Br 1 4

Spanish Pistole.

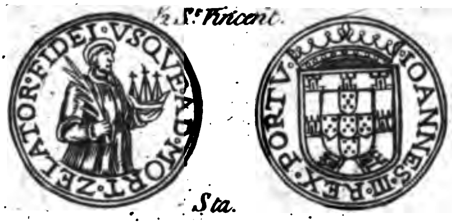


Spanish Doublon



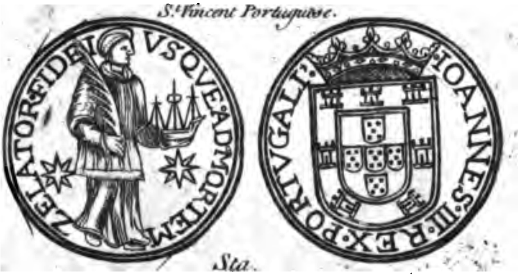


½ St. Vincent.



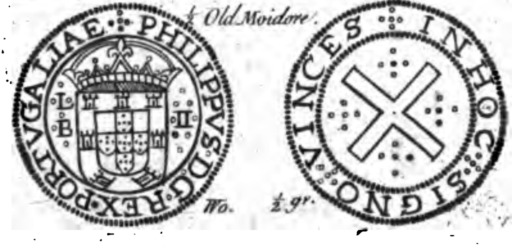
Sta.

St. Vincent Portuguese.



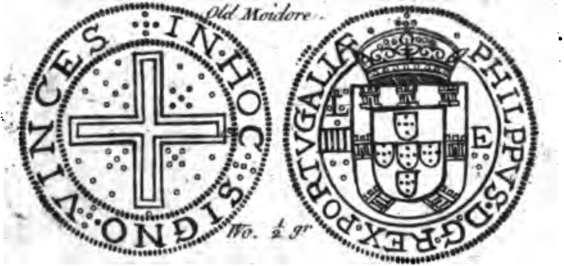
Sta.

½ Old Moidore.



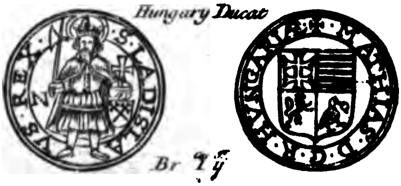
Wo. ½ gr.

Old Moidore.



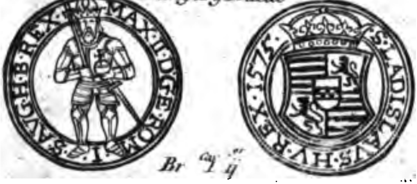
Wo. ½ gr.

Hungary Ducat



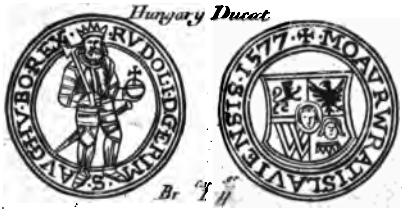
Br $\overset{car}{1}\ \overset{gr}{4}$

Hungary Ducat



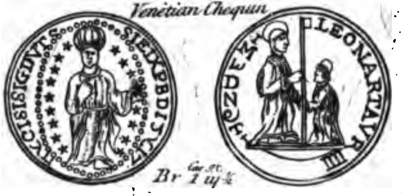
Br $\overset{car}{1}\ \overset{gr}{4}$

Hungary Ducat


RUDOL·II·D·G·E·RIM·S·AV·G·H·V·BO·REX
1577·MO·AVR·W·RATISLAVIENSIS

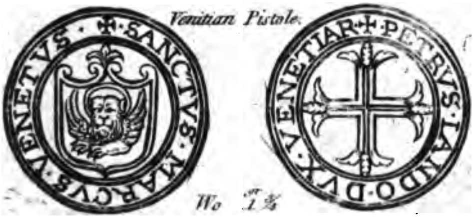
Br $\overset{car}{1}\ \overset{gr}{4}$

Venetian Chequin

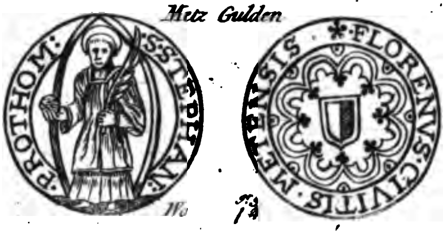


Br $\overset{car}{1}\ \overset{gr}{4\frac{1}{4}}$

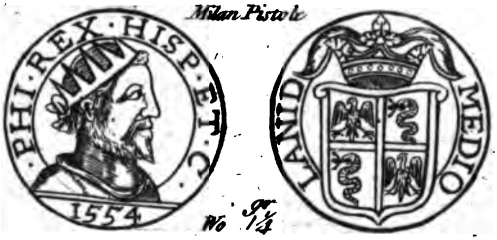
Venitian Pistole.



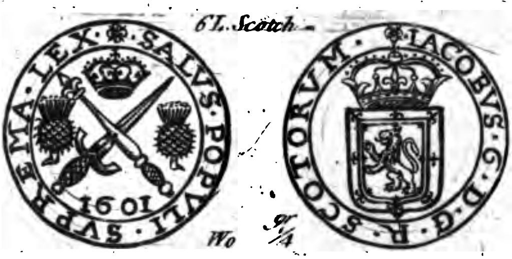
Wo $\overset{car}{1\frac{1}{2}}$



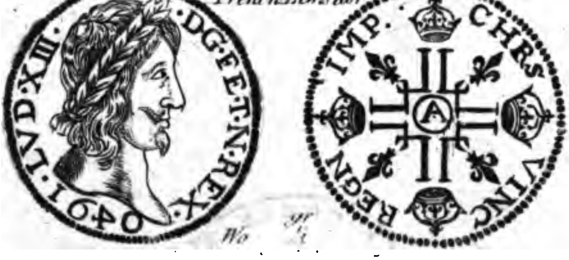
Metz Gulden



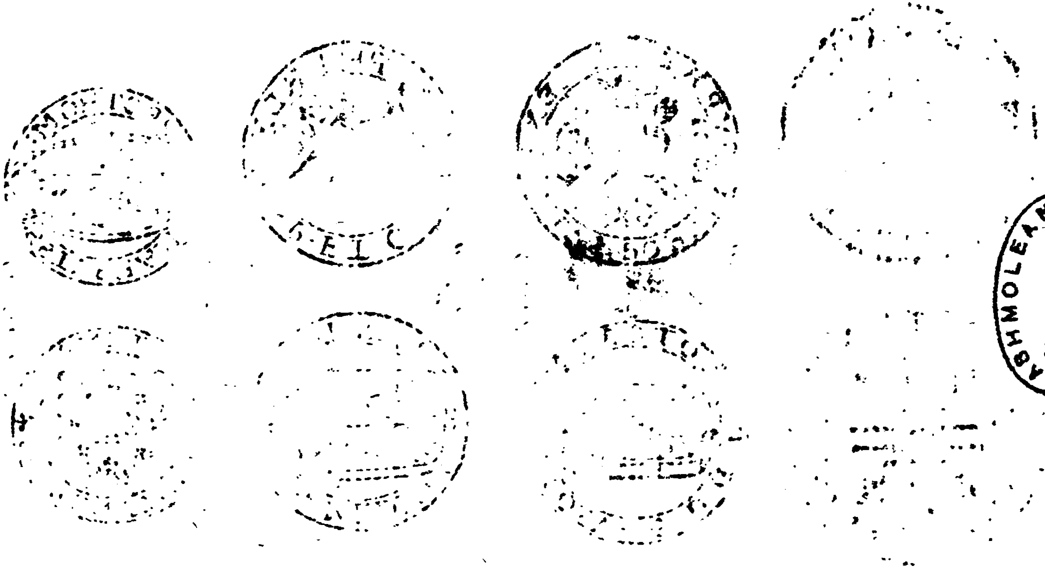
Milan Pistole



6 L. Scotch



French Lewis d'or



ASHMOLEAN
MUSEUM
OXFORD